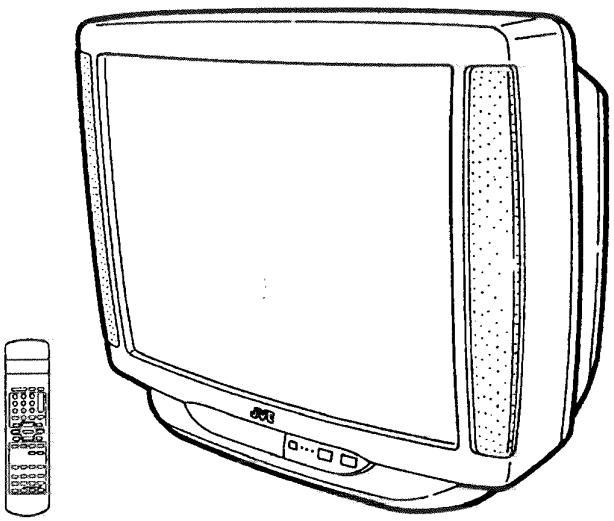
JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-25TS1EN

BASIC CHASSIS
JC



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No.51088
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SPECIFICATIONS

Item	Content
Dimensions (W×H×D)	66.3cm×51.7cm×47.2cm
Mass	27.2kg
TV RF System	CCIR (B/G)
Colour System	PAL / SECAM / NTSC (only in EXT mode)
Stereo System	A2/NICAM
Teletext system	FASTEXT (United Kingdom system) , TOP (Germany system) WST (Standard system)
Receiving Frequency	
VHF Low Band	47MHz ~ 88MHz
VHF High Band	174MHz ~ 230MHz
UHF	470MHz ~ 862MHz
CATV Mid Band	68MHz ~ 175MHz
CATV Super Band	230MHz ~ 301MHz
CATV Hyper Band	302MHz ~ 470MHz
Intermediate Frequency	
VIF Carrier	38.9MHz
SIF Carrier	33.4MHz (2nd : 5.5MHz)
Colour Sub Carrier Frequency	
PAL	4.43MHz
SECAM	4.40625MHz / 4.25MHz
NTSC	3.58MHz / 4.43MHz
Aerial Input Terminal	75Ω Unbalanced, Coaxial
Power Input	220V~240V AC , 50Hz
Power Consumption	133W (Max) / 93W(Avg), 93W/h (ITALY)
Picture Tube	25"(Visible size: 59cm) Diagonally measured
High Voltage	28.0kV $^{+1kV}_{-1.5kV}$ (at zero beam current)
Speaker	5×12cm Oval Type, 8Ω ×2
Audio Output	5W + 5W
EXT-1 / EXT-2	21-pin Euro connector (SCART socket)
EXT-3 (Input) Video	1Vp-p 75Ω (RCA pin jack)
Audio(L/R)	500mVrms (-4dBs), High Impedance (RCA pin jack)
Remote Control Unit	RM-C761 [Battery size : AAA (R03) ×2]

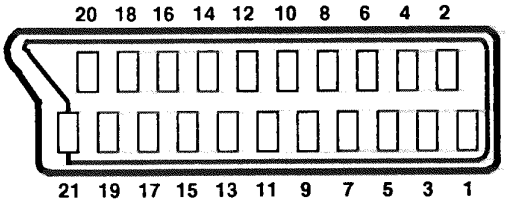
Design & specification subject to change without notice.

■21-pin Euro connector (SCART socket) : EXT-1 / EXT-2

(P-P = Peak to Peak , S-W = Sync tip to white peak, B-W = Blanking to white peak)

Pin No.	Signal Designation	Matching Value	EXT-1	EXT-2
1	AUDIO R output	500mVrms(Nominal), Low impedance	○ (TV OUT)	○ (TV / LINE OUT)
2	AUDIO R input	500mVrms(Nominal), High impedance	○	○
3	AUDIO L output	500mVrms(Nominal), Low impedance	○ (TVOUT)	○ (TV / LINE OUT)
4	AUDIO GND		○	○
5	GND (B)		○	○
6	AUDIO L input	500mVrms(Nominal), High impedance	○	○
7	B input	700mV$_{B-W}$, 75Ω	○	NC
8	FUNCTION SW (SLOW SW)	Low : 0 - 3V, High : 8 - 12V, High impedance	○	NC
9	GND (G)		○	○
10	–		NC	–
10	SCL3		–	○
11	G input	700mV$_{B-W}$, 75Ω	○	NC
12	–		NC	–
12	SDA3		–	○
13	GND (R)		○	○
14	GND (Ys)		○	NC
15	R / C input	R : 700mV$_{B-W}$, 75Ω C : 300mVp-p, 75Ω	○ (R/C)	○ (only C)
16	Ys input	Low : 0 - 0.4V, High : 1 - 3V, 75Ω	○	NC
17	GND (VIDEO output)		○	○
18	GND (VIDEO input)		○	○
19	VIDEO output	1V$_{S-W}$(Negative going sync.) , 75Ω	○ (TV)	○ (TV / LINE OUT)
20	VIDEO / Y input	1V$_{S-W}$(Negative going sync.) , 75Ω	○	○
21	COMMON GND		○	○

[Pin assignment]



SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes.
   For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠)on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Don't short between the LIVE side ground and ISOLATED(NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.
5. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B_1 POWER SUPPLY).
6. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
7. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
8. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.
9. **Isolation Check**
   (Safety for Electrical Shock Hazard)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

(1) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

(2) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).

• Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.35V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).

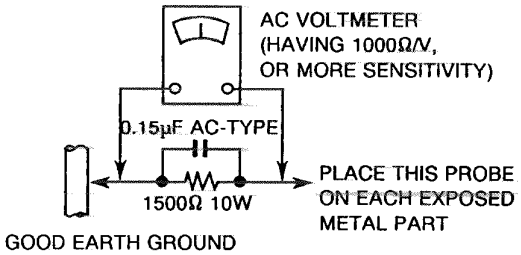


Fig.A

Specifications

TV RF system	: CCIR B/G
Colour system	: PAL, SECAM (NTSC 3.58/4.43 MHz in EXT mode)
Receiving channels	: E2-E12, E21-E69, S1-S41, X, Y, Z, Z+1, Z+2, A-H, H+1, H+2
Sound-multiplex system	: A2, NICAM
Teletext system	: Fastext (United Kingdom system), TOP (German system), WST (Standard system)
Power input	: AC 220 – 240 V, 50 Hz
Power consumption	: Average 78 W, Maximum 117 W, Standby 4.3 W (AV-21TS1EN) Average 93 W, Maximum 133 W, Standby 4.6 W (AV-25TS1EN) Average 106 W, Maximum 146 W, Standby 4.6 W (AV-29TS1EN)
Picture tube	: 51 cm (AV-21TS1EN) 59 cm (AV-25TS1EN) 68 cm (AV-29TS1EN)
Audio output	: Rated power output : 5 W + 5 W
Speaker	: 5 × 9 cm oval × 2 (AV-21TS1EN) 5 × 12 cm oval × 2 (AV-25TS1EN) 10 cm round × 2 (AV-29TS1EN)
External input/output	: • EXT-1 : 21-pin Euroconnector (SCART) • EXT-2 : 21-pin Euroconnector (SCART) • EXT-3 (not available on AV-21TS1EN) : Video input : RCA Audio inputs : RCA × 2 • Headphone jack : stereo mini jack (dia. 3.5 mm)
Dimensions (W × H × D)	: 605 mm × 476 mm × 475 mm (AV-21TS1EN) 663 mm × 517 mm × 472 mm (AV-25TS1EN) 733 mm × 583 mm × 492 mm (AV-29TS1EN)
Weight	: 21.3 kg (AV-21TS1EN) 27.2 kg (AV-25TS1EN) 38.9 kg (AV-29TS1EN)
Accessories	: • Remote control (RM-C761) × 1 • AAA (R03) dry cell battery × 2

Design and specifications subject to change without notice.

JVC

VICTOR COMPANY OF JAPAN, LIMITED

AV-21TS1EN/AV-25TS1EN/AV-29TS1EN

JVC English

COLOUR TELEVISION

INSTRUCTIONS

OPERATING INSTRUCTIONS

Thank you for purchasing this JVC colour television.
To ensure your complete understanding, please read this manual thoroughly before operation.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

When you don't use this TV set for a long period of time, be sure to disconnect the power plug from the AC outlet.

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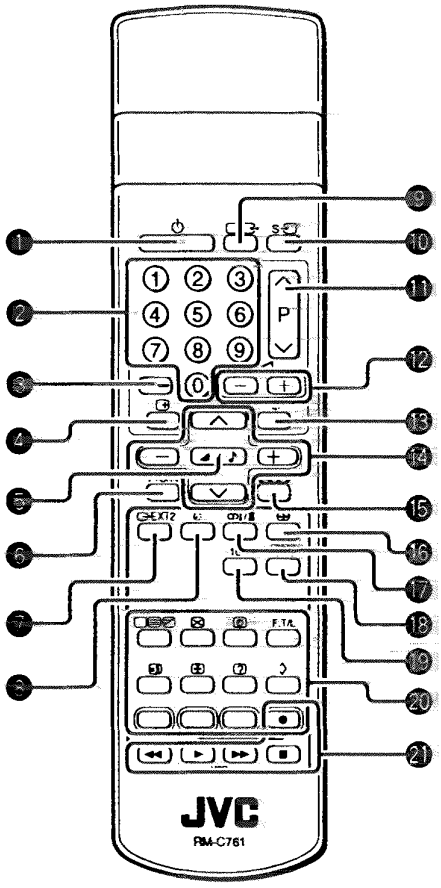
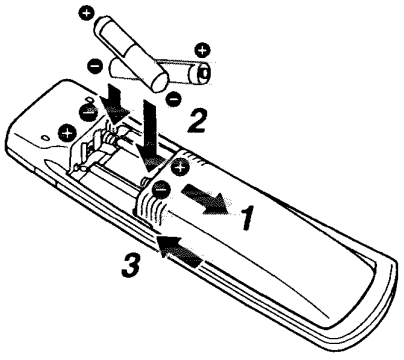
LOCATIONS OF REMOTE CONTROL BUTTONS



❶ Standby button p.6
❷ Numeric buttons p.12
❸ -- button p.12
❹ Display button p.16
❺ Picture/sound button p.15
❻ Colour system button p.14
❼ EXT-2 output button p.5
❽ Sleep timer button p.16
❾ TV/EXT button p.13
❿ S-IN button p.13
⓫ PR channel up/down button p.12
⓬ Volume –/+ buttons p.12
⓭ Mute button p.14
⓮ Menu buttons p.7
⓯ ECO mode button p.17
⓰ Spatial effect button p.14
⓱ Multi sound button p.14
⓲ Cinema/game button p.15
⓳ 16:9 button p.14
⓴ TELETEXT buttons p.18
㉑ VCR control buttons p.13

Inserting batteries into the remote control

Correctly insert two batteries observing the ⊕ and ⊖ polarities from the ⊖ end.



Caution:

- Follow the cautions printed on the batteries.

Notes:

- Use AAA/R03 dry cell batteries.
- Battery life is approximately six months to one year depending on the frequency of use.
- If the remote control operates erratically, replace the batteries.
- The batteries supplied are for testing the remote control, not for regular use.

CONNECTION

Connecting the aerial and VCR

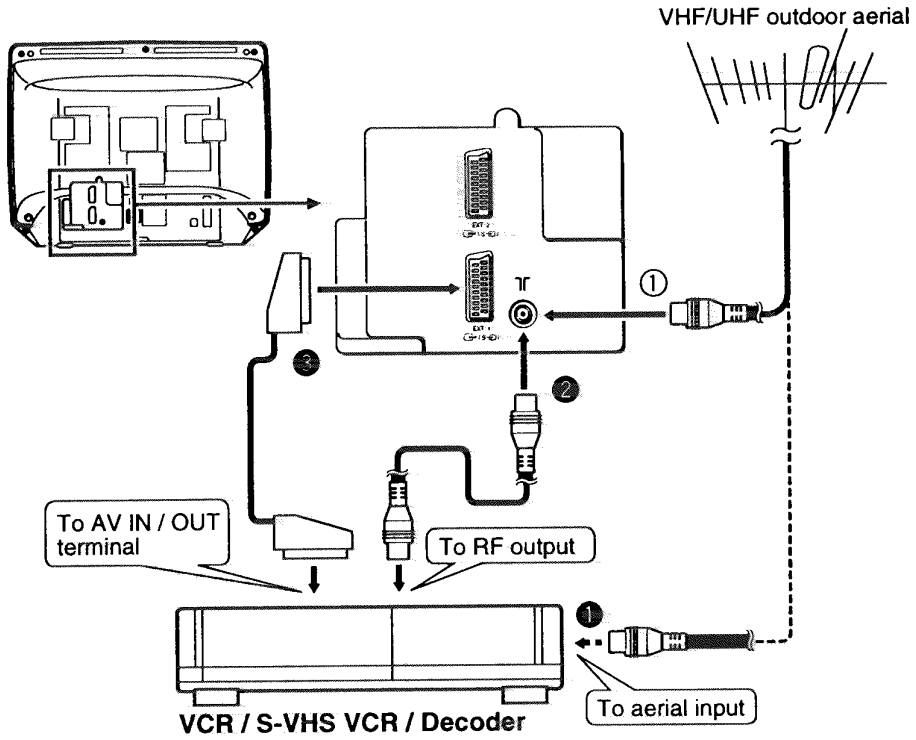
Notes:

- Refer to manuals provided with the external devices for further details.
- Connecting cables are not supplied.

If not connecting a VCR, do ①.
If connecting a VCR, proceed ❶ → ❷ → ❸.

Note:

- You can view the picture without doing ❸. For details, refer to the manual provided with your VCR.



Connecting the power cord

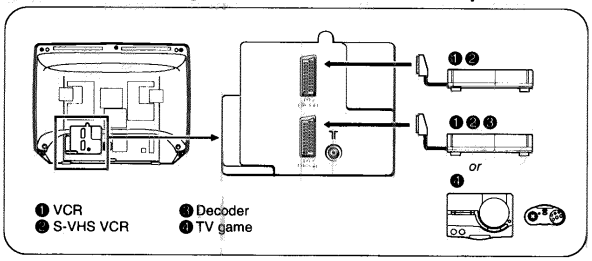
Insert the Power plug into the AC outlet (AC 220 – 240V, 50Hz).

Connecting external devices

Note:

- Refer to manuals provided with the external devices for further details.

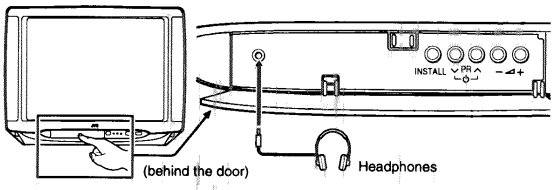
■ When connecting to the terminal on the rear panel



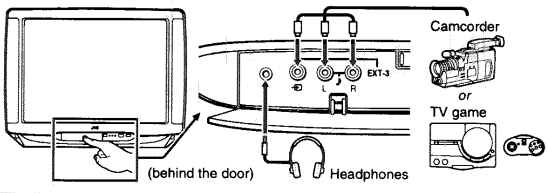
❶ VCR
❷ S-VHS VCR
❸ Decoder
❹ TV game

■ When connecting to the terminal on the front panel

(AV-21TS1EN)



(AV-25TS1EN/AV-29TS1EN)



Notes:

- This TV set has external device connectors, EXT-1 to EXT-3 (AV-21TS1EN does not have EXT-3.), to which you can connect a VCR. However, there are some differences in function among them.
  Consult the following table before making connections.

	EXT-1	EXT-2	EXT-3 (front)
VIDEO IN	√ *1	√ *1	√
VIDEO OUT	√ *2	√ *3	–
S-VIDEO IN	√ *1	√ *1	–
S-VIDEO OUT	–	–	–
RGB IN	√	–	–
AUDIO-L IN	√	√	√
AUDIO-R IN	√	√	√
AUDIO-L OUT	√ *2	√ *3	–
AUDIO-R OUT	√ *2	√ *3	–
Others	Automatic detection and switching of input mode.		

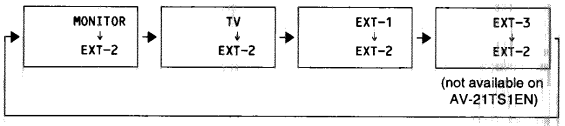
*1 Select VIDEO or S-VIDEO mode by S-IN (S-IN) button.
*2 Only the TV broadcast is output.
*3 TV broadcasts or inputs from EXT-1 or 3 can be output. However, when you select EXT-2, no signals are output.

- Use headphones with a stereo mini jack (dia. 3.5 mm).
  When using headphones, the speakers will not output sound.

Selecting EXT-2 Output

Select output to a VCR or other device connected to the EXT-2 terminal.

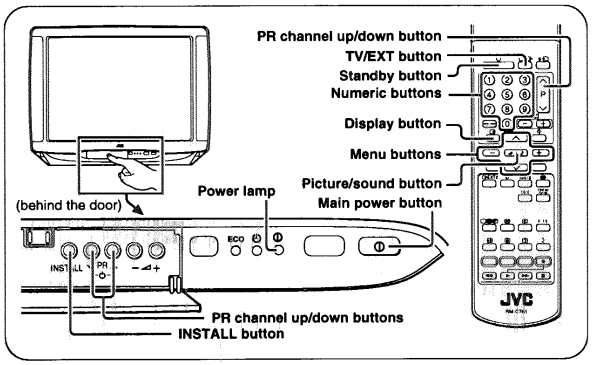
1. Press EXT2 (EXT-2 output) button repeatedly.



MONITOR: The same sounds and pictures that you are watching on your TV are output from EXT-2.
TV: The sounds and pictures of the PR channel currently selected on your TV are output from EXT-2. This allows you to record TV broadcasts on a VCR connected to EXT-2 while watching a video on EXT-1 or EXT-3.

Notes:

- The EXT-2 signal is not output from your TV when the TV is turned off.
- RGB signals from TV games and TELETEXT screens cannot be output from EXT-2.



Turning your TV ON/OFF

■ To turn your TV ON

1. **Press ⏻ (Main power) button to turn Main power ON.**
   ⏻ (Power) lamp lights up red.
   • Your TV enters Standby mode.
2. **Press ⏻ (Standby) button to your TV ON.**
   ⏻ (Power) lamp changes to green.

Note:
• At step 2, your TV turns ON if you press any of the following buttons:
– ∨ PR ∧ (PR channel up/down) buttons on the TV
– (PR channel up/down) button on the remote control
– numeric buttons
– (TV/EXT) button

■ To turn your TV OFF

1. **Press ⏻ (Standby) button to your TV OFF.**
   ⏻ (Power) lamp changes to red.
   • Your TV enters Standby mode.
2. **Press ⏻ (Main power) button to turn Main power off.**
   ⏻ (Power) lamp goes off.

Note:
• We recommend that you turn the Main power OFF if you do not plan to use your TV for a long time and/or you wish to save energy.

Selecting the on-screen language

You can select one of six languages as the on-screen language.

1. **Press INSTALL (Install) button on your TV.**
2. **Press (Picture/sound) button.**
3. **Press ∧ or ∨ menu button to select a language, then press (Display) button twice.**

Note:
• In this manual, on-screen discriptions are given in English. Select ENGLISH.

Presetting PR channels *(Programmed channels)*

To watch TV, you must first set the broadcast channels to the PR channels on your TV.
You can set up to 100 channels you want to watch.
There are two ways of setting PR channels, automatic setting and manual setting.

■ Automatic setting *(AUTO PROGRAM)*

Broadcast channels that can be received are automatically judged, and PR channels are set in order from low frequency broadcast channels.

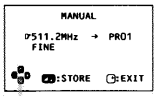
1. **Press INSTALL (Install) button.**
2. **Press ∧ or ∨ menu button to select AUTO PROGRAM.**
3. **Press (Picture/sound) button twice.**
   The channel is automatically set, and the EDIT menu is displayed.
   • To edit PR channels, see page 9.
4. **Press (Display) button twice.**
   The setting is complete.

Note:
• With automatic setting, a broadcast channel cannot be set to PR channel PR00 (AV).
PR channel PR00 is for viewing RF output video from a VCR.
To set a broadcast channel to PR00 (AV), set by manual setting or by editing a PR channel.

■ Manual setting

You can set a broadcast channel to the desired PR channel. In addition, you can set broadcast channels not preset by automatic setting.

1. **Press INSTALL (Install) button.**
2. **Press ∧ or ∨ menu button to select MANUAL, then press (Picture/sound) button.**



3. **Press (PR channel up/down) button to select PR channel number.**
4. **Press − or + menu button to select the frequency of the broadcast channel.**
   Scanning is stopped automatically when a broadcast is received. Repeatedly press − or + menu button to scan until the desired broadcast is received.
5. **Press (Picture/sound) button.**
   The on-screen display blinks once, and the current settings are stored as a PR channel.
   Repeat steps 3 to 5 to store all desired broadcast channels.
6. **Press (Display) button twice.**
   The setting is complete.

Note:

- For details on the frequency of broadcast channels, see "Broadcast Channel Frequency Table" on page 11.

If the picture is not clear:

- Press ∨ menu button to select FINE. Then press − or + menu button to fine-tune the channel.

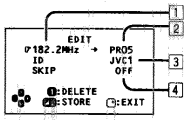
Editing PR channels

You can delete unwanted broadcast channels or change the PR channel number in the EDIT menu. You can also turn channel skip ON or OFF, or set a station ID to a broadcast channel.

■ How to edit PR channels

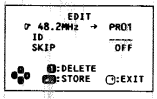
1. **Press INSTALL (Install) button to display the INSTALLATION menu.**

2. **Press ∧ or ∨ menu button to select EDIT. Then, press (Picture/sound) button to display the EDIT menu.**



1: frequency of broadcast channel
2: PR channel number
3: station ID
4: channel skip setting

3. **Press (PR channel up/down) button to set the PR channel number to PR01.**
   The broadcast channel set to PR01 is displayed on screen.



Notes:

- When automatic setting is finished, the screen changes to the EDIT screen for PR channel PR01. To continue editing PR channels, proceed to step 4.
- For details on the frequency of broadcast channels, see "Broadcast Channel Frequency Table" on page 11.

Note:

- To change the PR00 (AV) setting, set the PR channel number to 00 and start editing.

(Continued on next page)

4. Change the currently displayed PR channel setting.
When leaving the setting as it is, proceed to step 5.

● ***To delete the broadcast channel set to the current PR channel:***
(1) Press numeric button (1).
• The broadcast channel set to the next PR channel is reset, and then displayed on screen.

● ***To change the broadcast channel set to the current PR channel:***
(1) Press (−) or (+) menu button to select the desired broadcast channel.

Note:
• Broadcast channels set to a PR channel number smaller than the current PR channel number cannot be selected.

● ***To turn the channel skip setting of the current broadcast channel ON or OFF:***
(1) Press (^) or (v) menu button to select SKIP.
(2) Press (−) or (+) menu button to turn the channel skip setting ON or OFF.

Note:
• When you turn channel skip ON, the PR channel can no longer be selected by the PR channel up/down button.

● ***To set the station ID to the current broadcast channel:***
(1) Press (^) or (v) menu button to select ID.
(2) Press (+) menu button to select the position for entering the station ID.
• The colour of the selected position changes.
(3) Repeatedly press (^) or (v) menu button to select the ID letters.
(4) Press (+) or (−) button to move the entry position.
(5) Repeat steps (3) and (4) to complete setting of the station ID.
(6) Press (+) button to return to ID.

5. Press (Picture/sound) button to end setting of the current PR channel.
The EDIT menu for the next PR channel is displayed, and the broadcast channel set for that PR channel is selected.

Note:
• To change the setting of a PR channel having a number smaller than the currently displayed PR channel number, return to step 3., and select the PR channel whose setting you want to reset.

6. Repeat steps 4. and 5. to change the settings of all PR channels.
When you have finished setting all PR channels, return to the EDIT menu of PR channel PR01.

7. Press (Display) button twice to delete the EDIT menu.
Editing of PR channels is complete.

Broadcast Channel Frequency Table

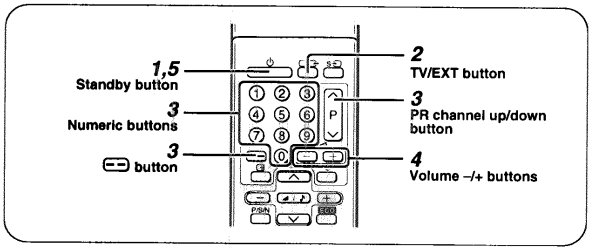
• This TV displays only one digit past the decimal point for Broadcast channel Frequency values.

Channel	Frequency (MHz)
E2	48.25
E3	55.25
E4	62.25
X	69.25
Y	76.25
Z	83.25
Z+1	90.25
Z+2	97.25
S1, M1	105.25
S2, M2	112.25
S3, M3	119.25
S4, M4	126.25
S5, M5	133.25
S6, M6	140.25
S7, M7	147.25
S8, M8	154.25
S9, M9	161.25
S10, M10	168.25
E5	175.25
E6	182.25
E7	189.25
E8	196.25
E9	203.25
E10	210.25
E11	217.25
E12	224.25
S11, U1	231.25
S12, U2	238.25
S13, U3	245.25
S14, U4	252.25
S15, U5	259.25
S16, U6	266.25
S17, U7	273.25
S18, U8	280.25
S19, U9	287.25
S20, U10	294.25
S21, U11	303.25
S22, U12	311.25
S23, U13	319.25
S24, U14	327.25
S25, U15	335.25
S26, U16	343.25
S27, U17	351.25
S28, U18	359.25
S29, U19	367.25
S30, U20	375.25
S31, U21	383.25
S32, U22	391.25
S33, U23	399.25
S34, U24	407.25
S35, U25	415.25
S36, U26	423.25
S37, U27	431.25
S38, U28	439.25
S39, U29	447.25
S40, U30	455.25
S41, U31	463.25
E21	471.25
E22	479.25
E23	487.25
E24	495.25
E25	503.25
E26	511.25
E27	519.25
E28	527.25
E29	535.25
E30	543.25
E31	551.25
E32	559.25
E33	567.25
E34	575.25
E35	583.25
E36	591.25
E37	599.25
E38	607.25
E39	615.25
E40	623.25
E41	631.25
E42	639.25
E43	647.25
E44	655.25
E45	663.25
E46	671.25
E47	679.25
E48	687.25
E49	695.25
E50	703.25
E51	711.25
E52	719.25
E53	727.25
E54	735.25
E55	743.25
E56	751.25
E57	759.25
E58	767.25
E59	775.25
E60	783.25
E61	791.25
E62	799.25
E63	807.25
E64	815.25
E65	823.25
E66	831.25
E67	839.25
E68	847.25
E69	855.25

Channel	Frequency (MHz)
ITALY A	53.75
ITALY B	62.25
ITALY C	82.25
ITALY D	175.25
ITALY E	183.75
ITALY F	192.25
ITALY G	201.25
ITALY H	210.25
ITALY H+1	217.25
ITALY H+2	224.25

BASIC OPERATION

Viewing a Television Programme

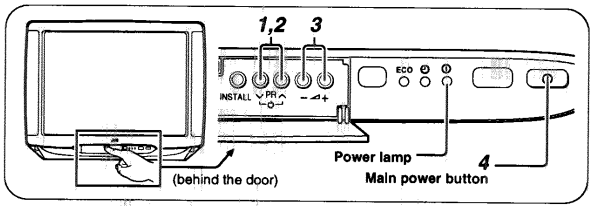


1. **Press (Standby) button to turn your TV ON.**
   ⏻ (Power) lamp changes colour from red to green.
2. **If your TV is in the EXT mode, press (TV/EXT) button to select TV mode.**
3. **Select a PR channel.**
   - ***Scan selection:***
     Press (PR channel up/down) button
   - ***Direct selection:***
     When selecting a 1-digit PR channel:
     (1) Press numeric button.
     When selecting a 2-digit PR channel:
     (1) Press button.
     (2) Use the numeric buttons to enter the 2-digit PR channel number.
4. **Press (Volume –/+) buttons to adjust the sound.**
5. **To turn your TV OFF, press (Standby) button.**
   ⏻ (Power) lamp changes colour from green to red.

Note:
- If your TV does not turn ON, press Main power button and press Standby button again.

Note:
- PR channel PR00 is displayed as "AV" on screen.

■ Controlling the TV without using the remote control



1. **Press (PR channel up/down) buttons.**
2. **Press (PR channel up/down) buttons to select the PR channel.**
3. **Press (Volume –/+) buttons.**
4. **To turn off your TV, press ⏻ (Main power) button to Main power OFF.**
   ⏻ (Power) lamp goes off.

Notes:
- If your TV does not turn ON, press Main power button and press PR channel up/down buttons again.
- You cannot enter the EXT mode by the buttons on your TV.

Viewing from an external device

1. **Press (TV/EXT) button to select the appropriate input mode.**
   The mode changes cyclically in the following order.
   TV mode → EXT-1 mode → EXT-2 mode → EXT-3 mode (not available on AV-21TS1EN) →
2. **Press (S-IN) button if you wish to select S-VIDEO mode.**

Note:
- You cannot select S-VIDEO mode in the EXT-3 mode.

To control your VCR via the TV remote control
VCR control buttons on the remote control have the same functions as those on the JVC VCR units. For details on the functions, refer to the instruction manual provided with your JVC VCR.

Note:
- Some VCRs or some functions of VCRs may not be operable with this remote control.

SOUND AND PICTURE

Multi sound

You can select the sound system for stereo broadcast programmes and bilingual programmes. To do this, press I/II (Multi sound) button repeatedly to select the desired sound system.

∞ : Stereo sound
I : Bilingual I (sub I)
II : Bilingual II (sub II)
○ : Normal sound

Notes:

- MULTI SOUND function has no effect without NICAM or A2 broadcast programmes.
- When displaying the current PR channel number, the current mode appears for approx. 3 seconds.

Colour system

The colour system is automatically selected. If the picture is not clear, you can change it manually. To do this, press P/S/N (Colour system) button repeatedly. The system changes cyclically in the following order.

When in TV mode (channel 1 to 99):

PAL → SECAM

When in TV mode (channel 0):

AUTO → PAL → SECAM

When in EXT mode:

AUTO → PAL → SECAM → NTSC4.43 → NTSC3.58

AUTO:
Automatic colour system selection

Mute

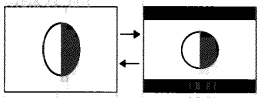
You can instantly turn the sound off. To do this, press (Mute) button. To return the sound, press (Mute) button again.

Spatial effect

You can enjoy sounds with a wider ambiance by Spatial effect. To do this, press (Spatial effect) button. To return to normal sound, press (Spatial effect) button again.

Wide screen *(16:9)*

You can enjoy a wider viewing screen by changing the aspect ratio from standard (4:3) to view panoramic pictures (16:9). To do this, press 16:9 (16:9) button to alternate the aspect ratios.



(4:3) (16:9)

Temporary picture/ sound adjustment

You can temporarily adjust the picture and sounds as you like.

1. **Press (Picture/sound) button.**
   Picture adjust menu appears.
2. **Press ∧ or ∨ menu button to select an item, and press − or + menu button to set the level.**

−	Item	+
Reddish	TINT*	Greenish
Low	COLOUR	High
Dark	BRIGHT	Bright
Low	CONT.	High
Soft	SHARP	Sharp

BRIGHT: Brightness
CONT.: Contrast
SHARP: Sharpness

* You can only set TINT when in EXT mode NTSC 3.58 or NTSC 4.43.

3. **Press (Picture/sound) button to display the Sound adjust menu.**
4. **Press ∧ or ∨ menu button to select an item, and press − or + menu button to set the level.**

−	Item	+
Low	BASS	High
Low	TREBLE	High
Left	BALANCE	Right

5. **Press (Picture/sound) button.**
   The settings are complete.

Note:

- If you press CINEMA GAME (Cinema/game) button to change a setting other than the USER, your Picture/sound adjustment setting is canceled.

Picture/sound selection

You can choose from four Picture/ sound settings.
To do this, press CINEMA GAME (Cinema/game) button repeatedly. The setting changes cyclically in the following order.

CINEMA → GAME → STANDARD → USER

(Cinema mode):
Use this setting when viewing film programmes.

(Game mode):
Use this setting when playing TV games.

STANDARD (Standard mode):
Use this setting for regular viewing.

USER (User mode):
Use this setting to set your own personal Picture/sound setting. To do this, select USER and adjust the setting using Temporary picture/sound adjustment.

OTHER FEATURES

Display messages

You can display the channel number and ID, or the current time. To do this, press (Display) button repeatedly. The display changes cyclically in the following order.

PR channel number and ID → Current time → No indication

About the current time display:
This TV displays the current time using the current time data of TELETEXT.

- Only the black frame is displayed when watching broadcasts that are not TELETEXT broadcasts.
- When watching videos, the wrong current time is sometimes displayed.

Note:

- The display of the current time runs to the side and is sometimes not displayed when the reception state of TELETEXT broadcast is poor.

Sleep timer

You can set your TV to automatically turn off within a specified period of time. To do this, press (Sleep timer) button repeatedly. The period of time increases in 10-minute intervals.

0 → 10 → 20 ••• 100 → 110 → 120

- (Sleep timer) lamp lights when the sleep timer is set.
- One minute before the off timer arrives, "GOOD NIGHT!" appears. And three seconds before the off timer arrives, "JVC" is displayed blinking on screen.

To display the remaining time:
Press (Sleep timer) button once.

To cancel the SLEEP TIMER:
Press (Sleep timer) button to return the OFF time to 0.
(Sleep timer) lamp goes off.

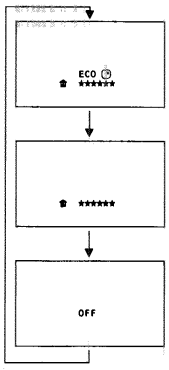
Note:

- The main power cannot be turned OFF by the sleep timer.

ECO mode

When you set the ECO mode to ON, the screen contrast is automatically adjusted to the optimum setting matched to the brightness of your room.
For example, you can prevent watching a screen that is unnecessarily bright for a dark room. This reduces eye strain and the power consumption of the TV.

1. Each press of (Eco mode) button, switches the function as follows.



ECO MODE: ON
(Display) function: ON
- The ECO (Eco mode) lamp on the front of your TV lights.

ECO MODE: ON
(Display) function: OFF
- The ECO (Eco mode) lamp on the front of your TV stays lit.

ECO MODE: OFF
(Display) function: OFF
- The ECO (Eco mode) lamp on the front of your TV goes out.

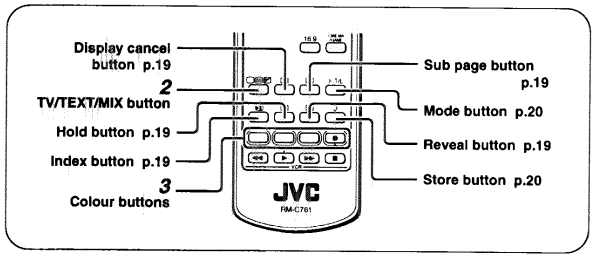
What is the "(Display) function"?
This function is for displaying the brightness of your room by stars ★ each time the brightness changes when the ECO MODE is ON. Up to six stars ★ shows the brightness of your room. The greater the number of stars, the darker your room is.

Viewing a TELETEXT Programme

You can view three types of teletext programmes: Fastext, TOP and WST. Three types of programmes are automatically recognized by your TV.

Note

- If you have problem concerning a teletext programme, consult your local dealer or television company.



1. **Select a PR channel that is broadcasting teletext information.**
2. **Press (TV/TEXT/MIX) button repeatedly to engage TEXT mode or MIX mode.**
   The mode changes cyclically in the following order.
   → TV mode → TEXT mode (TEXT only) → MIX mode (TV and TEXT) →
3. **Select a page you wish to view.**

   ●To select a page by scanning:
   Press (PR channel up/down) button.
   ∧ : scans forward to a page or item.
   ∨ : scans backward to a page or item.

   ●To select a page directly:
   Enter a 3-digit page number using numeric buttons.

   ●To select a page with COLOUR button:
   Press COLOUR button corresponding to the page number or item displayed at the bottom of the screen.

TELETEXT functions

■ Display cancel

You can view a normal TV programme while scanning for a teletext page you wish to view.

1. **Select the page you want to view.**
   Scanning starts.
2. **Press (Display cancel) button.**
   Your TV enters TV mode.
3. **Press (TV/TEXT/MIX) button when the page number you wish to view appears in the upper left of the screen.**

■ Page hold

You can hold a page temporarily even as the teletext transmission continues. To do this, press (Hold) button. Pressing (Hold) button or (Index) button, or selecting another teletext page will release the hold mode.

■ Hidden information reveal

Some teletext pages contain hidden information such as answers to questions. You can reveal the hidden information with this function.
To alternate reveal and hide, press (Reveal) button.

■ Index return

You can easily return to the index page by pressing (Index) button.
Pressing (Index) button returns to the teletext page on page 100.

Note:

- In LIST mode, pressing (Index) button returns to the page of the page number displayed in red in the lower left area of the screen.

■ Sub-teletext page display

Some teletext pages have sub-pages, which scroll automatically. You can store those pages in memory to view later on.

1. **Select a teletext page with sub-pages.**
2. **Press (Sub page) button.**
   The input position appears at the bottom left of the screen.
3. **Enter the sub-page number.**
   Example:
   To select the third page, press 0, 0, 0, 3.
   - You can also select a sub-page number by pressing RED or GREEN COLOUR button.

TELETEXT

■ LIST mode

If you store the number of Teletext pages you often view to memory in the LIST mode, you can quickly call up the desired Teletext page whenever you like.

Note:

- You can store up to four Teletext page numbers to each of PR channels PR01 to PR15.
  You can store up to four Teletext page numbers to other PR channels as common page numbers regardless of the PR channel number.

To call up a stored page:

1. **Press F.T/L (Mode) button to engage the LIST mode.**
   Stored page numbers are displayed at the bottom of the screen.
2. **Press COLOUR button of the same colour as the colour of the number of the Teletext page you want to view.**
   - To release the LIST mode, press F.T/L (Mode) button again.

To change a stored page number:

1. **Select a PR channel that is broadcasting a Teletext programme.**
2. **Press F.T/L (Mode) button to engage the LIST mode.**
   Stored page numbers are displayed at the bottom of the screen.
3. **Select the desired page number, and press COLOUR button of the same colour as the colour of that page number.**
4. **Enter the number of the Teletext page you want to store in three digits using the numeric buttons.**
5. **If you want to change another page number, repeat steps 3. and 4.**
6. **Press (Store) button until the displayed page number momentarily changes to white.**
   This completes storing of the Teletext page.

TROUBLESHOOTING

Important: Review all the instructions written in this INSTRUCTIONS manual.

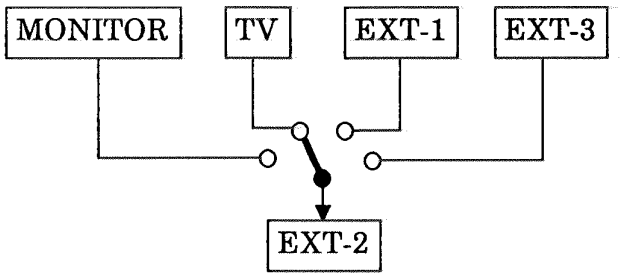
Problem	Action
Cannot turn TV ON	Press ⏻ (Main power) button. Insert the power plug in an AC outlet.
No picture or sound	Press TV/EXT (TV/EXT) button to engage the correct mode. Check the aerial connections.
Inoperable remote control	Replace the batteries.
The power shuts OFF automatically	Press (Standby) button to turn the TV ON again.
No sound	Disconnect the headphones.
No sound with stereo broadcast	Press DUAL (Multi sound) button to select ⊂⊃ (stereo sound).
No sound for Sub-I or Sub-II for programmes broadcast with dual sound	Press DUAL (Multi sound) button to select the appropriate mode.
Poor colours	Adjust the COLOUR and BRIGHTNESS controls. Press P/S/N (Colour system) button to select the appropriate system. Press CINEMA (Cinema/game) button to select STANDARD mode.
Lines or streaks in picture (interference)	Move the components apart until the interference is eliminated. Move the aerial to a different position or direction.
Spotted picture (crosstalk)	Move the aerial away from the source of interference. Replace the aerial cable with a coaxial cable, which is less prone to interference.
Double pictures (ghost)	Move the aerial to a different position, height or direction. Replace with an aerial having good directivity.
Snowy picture (Image noise)	Check the aerial connection and direct it correctly. Replace or repair the aerial.
The screen turns black	Broadcast is not being received. Select another PR channel.
No receivable Teletext programme	Turn to a PR channel that broadcasts teletext information. You cannot watch teletext broadcast recorded on a video tape.
The current time is not displayed	Receive the TELETEXT broadcast.
The current time moves to the side of the screen	The reception state of TELETEXT broadcast is poor, press (Display) button to erase the current time display.

The following are normal occurrences and are not the result of TV malfunctions:

- When you touch the CRT surface, you might feel a slight charge of static electricity. This is because the CRT contains static electricity; it does not affect the human body.
- Your TV may emit a crackling sound due to a sudden change in temperature. There is no problem unless the picture or sound is abnormal.
- When a still bright image (of a white dress, for example) appears on the screen, the image may be coloured. This problem occurs in all CRTs, and as the bright image disappears, such colouration also disappears.

FEATURES

1. The TELETEXT SYSTEM has a built-in FASTEXT, TOP & WST system.
2. By means of AUTO SET, the TV stations can be selected automatically and the TV channels can also be rearranged automatically.
3. Built-in ECO (ECONOMY, ECOLOGY) MODE
   In accordance with the brightness in a room, the brightness and / or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
4. The audio circuit has a built-in A2/NICAM stereo system.
5. The EXT-2 TERMINAL (21-pin Euro connector) can select the output circuit as shown below.



SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Unplug the power supply cord.
2. Remove the 9 screws marked Ⓩ as shown in figure.
3. Withdraw the rear cover toward you.

REMOVING THE CHASSIS

- After removing the rear cover.

1. Slightly raise the both sides of the chassis by hand and remove the two claws under the both sides of the chassis from the front cabinet.
2. Withdraw the chassis backward.
   (If necessary, take off the wire clamp, connectors etc.)

REMOVING THE AV TERMI. BOARD

- After removing the rear cover.

1. While raising the claw marked Ⓐ, remove the top of the AV TERMI. board slightly in the direction of arrow Ⓑ as shown in Fig. 1.
2. Pressing the claws marked Ⓐ, remove the AV TERMI. board toward you marked Ⓑ as shown in Fig. 2.

REMOVING THE CONTROL BASE

1. While pushing down the claws marked Ⓒ, remove the CONTROL BASE in the arrow direction Ⓓ as shown in Fig.3.
   (If necessary, take off the wire clamp, connectors etc.)

CHECKING THE PW BOARD

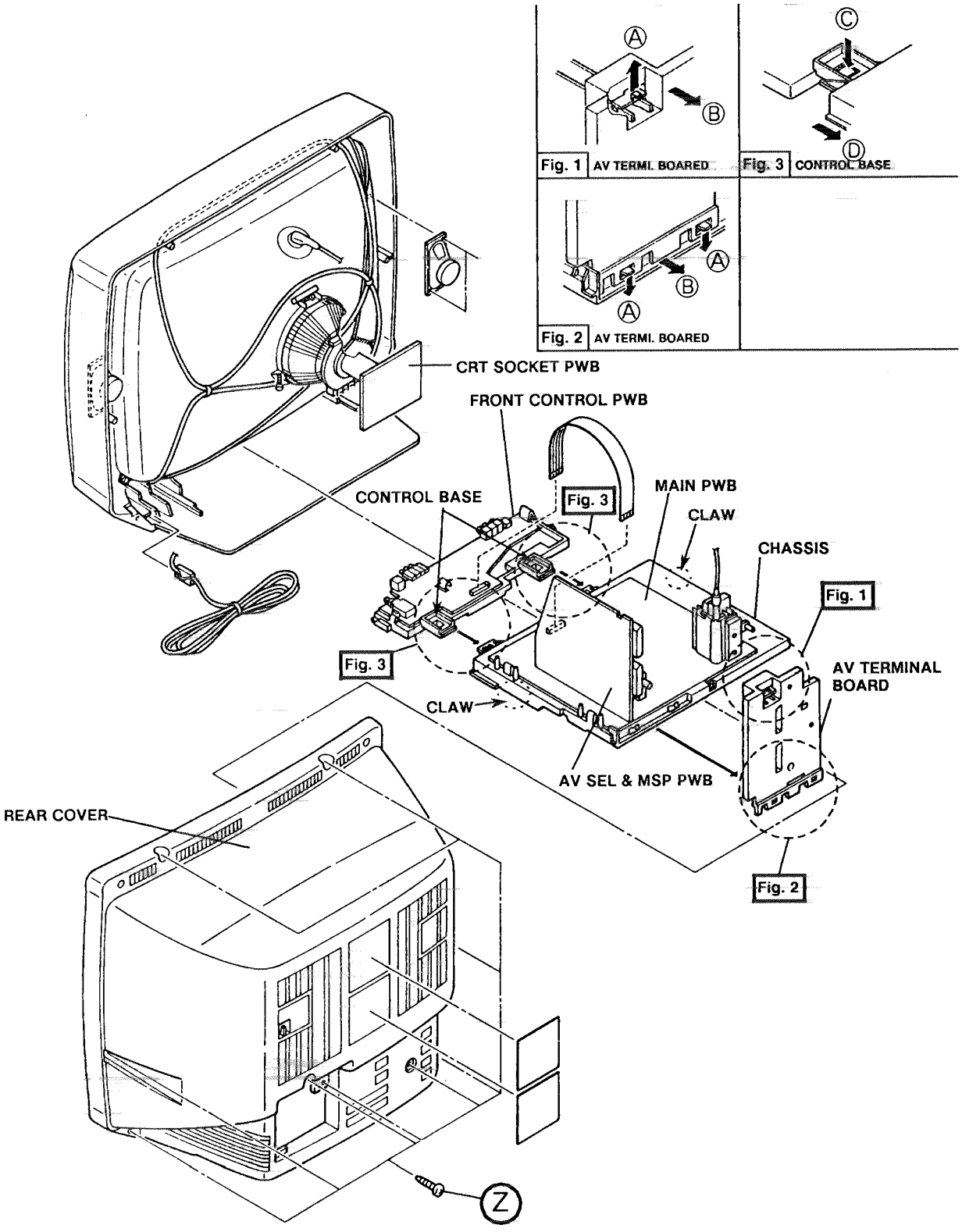
1. To check the back side of the PW Board.
   1) Pull out the chassis. (Refer to REMOVING THE CHASSIS) .
   2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.

WIRE CLAMPING AND CABLE TIES

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.


Ⓐ
Ⓑ
Fig. 1 AV TERMI. BOARED
Ⓒ
Ⓓ
Fig. 3 CONTROL BASE
Ⓐ
Ⓑ
Ⓐ
Fig. 2 AV TERMI. BOARED
CRT SOCKET PWB
FRONT CONTROL PWB
CONTROL BASE
Fig. 3
MAIN PWB
CLAW
CHASSIS
Fig. 1
Fig. 3
AV TERMINAL BOARD
CLAW
AV SEL & MSP PWB
Fig. 2
REAR COVER
Ⓩ

REPLACEMENT OF MEMORY ICs

1. Memory ICs

This TV use memory ICs (EEP-ROM IC). In the memory ICs are memorized data for correctly operating the video and deflection circuits. When replacing memory ICs, be sure to use ICs written with the initial values of data.

2. Procedure for replacing memory ICs

Procedure
(1) Power off Switch the power off and unplug the power code from the outlet.
(2) Replace ICs. Be sure to use memory ICs written with the initial data values.
(3) Power on Plug the power code into the outlet and switch the power on.
(4) Check and set SYSTEM CONSTANT SET: 1) Press the DISPLAY key and the CINEMA/GAME key of the REMOTE CONTROL UNIT simultaneously. 2) The SERVICE MENU screen of Fig. 1 will be displayed. 3) While the SERVICE MENU on display, Press the DISPLAY key and CINEMA/GAME key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed. 4) Check the setting values of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the FUNCTION UP/DOWN key, and set the correct value with the FUNCTION - /+ key. 5) Press the VIDEO/SOUND key and memorize the setting value. 6) Press the DISPLAY key twice, and return to the normal screen.
(5) Setting of receive channels Set the receive channel. For setting, refer to the **OPERATING INSTRUCTIONS**.
(6) User Setting Check the user seting values of Table 2, and if setting value is different, set the correct value. For setting, refer to the **OPERATING INSTRUCTIONS**.
(7) Setting of SERVICE MENU Verify the seting items of the **SERVICE MENU** of Table 3, and reset where necessary. For setting, refer to the **SERVICE ADJUSTMENTS**.

SERVICE MENU

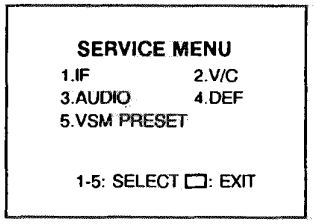


Fig. 1

SYSTEM CONSTANT SET

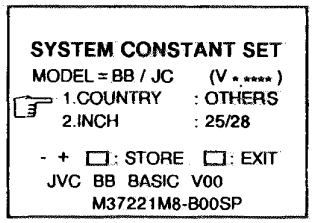


Fig. 2

NAMES OF REMOTE CONTROL KEY

Names of keys	key
DISPLAY	+
VIDEO/SOUND	
FUNCTION UP / DOWN	∧ ∨
FUNCTION - +	- +

SETTING VALUES OF SYSTEM CONSTANT SET

Setting item	Setting contents	Setting value
1. COUNTRY	↱ UK → OTHERS ↰	OTHERS
2. INCH	↱ 25 / 28 → 21 ↰	25 / 28

Table 1

USER SETTING VALUES

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	CINEMA/GAME	USER
CHANNEL	1 POSITION	SLEEP TIMER	0
CHANNEL PRESET	See;OPERATING INSTRUCTIONS	SPATIAL EFFECT	OFF
VOLUME	Appropriate sound volume	16:9/4:3	4:3
TV/EXT	TV	ECO	OFF
DISPLAY	POSITION DISPLAY	BALANCE	CENTER
P/S/N	TV : PAL	LANGUAGE	ENGLISH

Table 2

SERVICE MENU SETTING ITEMS

Service menu	Setting item	Service menu	Setting item
1. IF	1. VCO 2. DELAY POINT	4. DEF.	1. V-SLOPE 2. V-SHIFT 3. V-SIZE 4. H-CENT 5. H-SIZE 6. EW-PIN 7. TRAPEZ 8. V-S.CR (Fixed) 9. EW-COR (Fixed)
2. V / C	1. CUT OFF 2. R DRIVE 3. G DRIVE 4. B DRIVE (Do not adjust) 5. BRIGHT 6. CONT. 7. COLOUR (PAL/SECAM/N3/N4) 8. TINT (NTSC) 9. SHARP (TV / VIDEO)	5. VSM PRESET	1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. TINT 6. R DRIVE 7. G DRIVE 8. B DRIVE 9. BASS 10. TREBLE
3. AUDIO (Do not adjust)	1. CONC LIMIT 2. A2 ID THR		

Table 3

REPLACEMENT OF CHIP COMPONENT

■CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■SOLDERING IRON

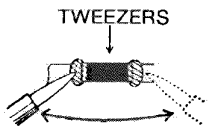
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■REPLACEMENT STEPS

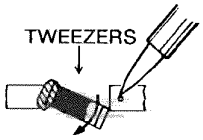
1. How to remove Chip parts

●Resistors, capacitors, etc

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

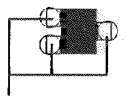


(2) Shift with tweezers and remove the chip part.

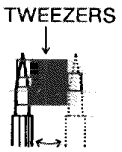


●Transistors, diodes, variable resistors, etc

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

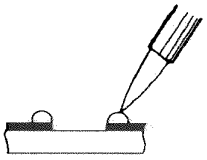


Note: After removing the part, remove remaining solder from the pattern.

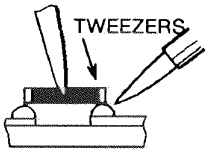
2. How to install Chip parts

●Resistors, capacitors, etc

(1) Apply solder to the pattern as indicated in the figure.



(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

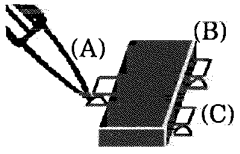


●Transistors, diodes, variable resistors, etc

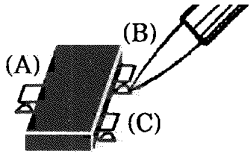
(1) Apply solder to the pattern as indicated in the figure.

(2) Grasp the chip part with tweezers and place it on the solder.

(3) First solder lead A as indicated in the figure.



(4) Then solder leads B and C.



SERVICE ADJUSTMENTS

BEFORE STARTING SERVICE ADJUSTMENT

1. **There are 2 ways of adjusting this TV: One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
2. **The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
3. Turn on the power of the TV and measuring instrument for warming up for at least 30 minutes before starting adjustment.
4. Make sure that connection is correctly made to AC power source.
5. If the receive or input signal is not specified, use the most appropriate signal for adjustment.
6. Never touch parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustments.
7. Preparation for adjustment (presetting):
   Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT:

(1) SPATIAL EFFECT	OFF
(2) BASS TREBLE BALANCE	CENTER CENTER CENTER
(3) CINEMA / GAME	STANDARD
(4) ECO	OFF
(5) 16:9(ASPECT SIZE)	4:3

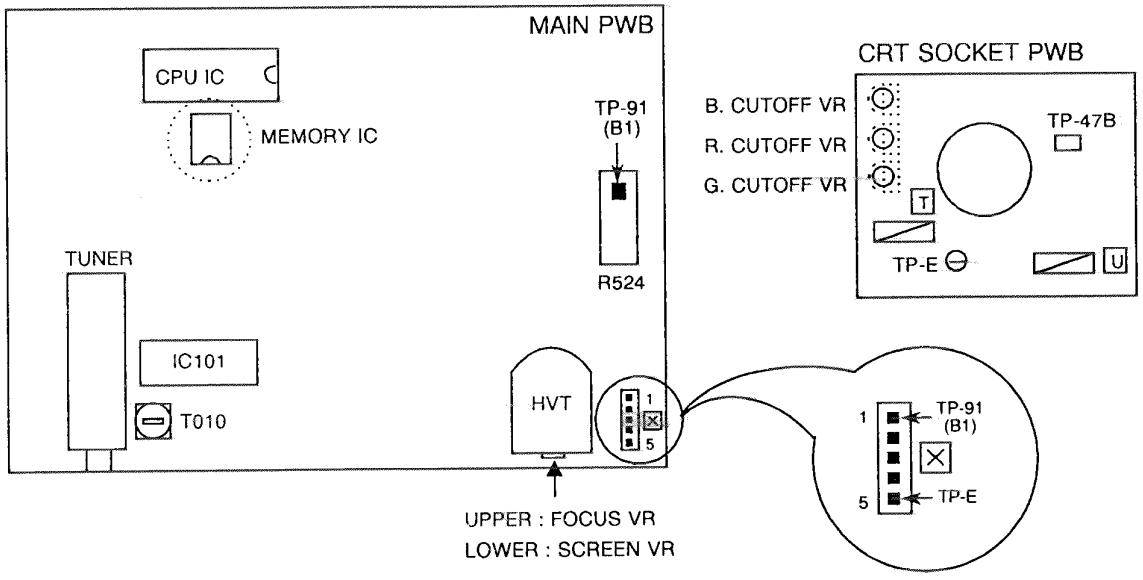
MEASURING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
4. Remote control unit

ADJUSTMENT ITEMS

Adjustment item	Adjustment item
B1 VOLTAGE check	VSM PRESET setting
	VIDEO/CHROMA circuit adjustment
FOCUS adjustment	DEFLECTION circuit adjustment
IF circuit adjustment	AUDIO circuit **(Do not adjust.)**

ADJUSTMENT LOCATIONS



BASIC OPERATION OF SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU ITEMS

With the SERVICE MENU, various settings (adjustments) can be made, and they are broadly classified in the following items of settings (adjustments):

(1) **1. IF** ..... for entering/adjusting the setting values (adjustment values) of the IF circuit.
(2) **2. V/C** ..... for entering/adjusting the setting values (adjustment values) of the VIDEO/CHROMA circuit.
(3) **3. AUDIO** ..... for entering/adjusting the setting values (adjustment values) of the multiplicity SOUND circuit.
(4) **4. DEF** ..... for entering/adjusting the setting values (adjustment values) of the DEFLECTION circuit.
(5) **5. VSM PRESET** .... for setting the values of STANDARD, USER, CINEMA and GAME.
(VSM : video status memory)

3. BASIC OPERATION OF SERVICE MENU

(1) How to enter SERVICE MENU

Press the DISPLAY key and the CINEMA/GAME key of the REMOTE CONTROL UNIT simultaneously.
The SERVICE MENU screen of Fig. 1 will be displayed.

SERVICE MENU

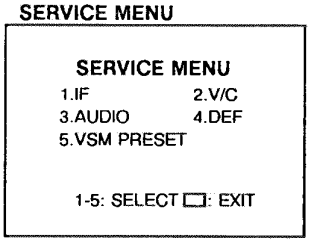


Fig. 1

NAME OF REMOTE CONTROL KEY

Names of key	Key
DISPLAY	+
VIDEO/SOUND	
FUNCTION UP / DOWN	∧ ∨
FUNCTION - / +	− +

(2) Selection of SUB MENU SCREEN

1) Press one of the keys 1 ~ 5 of the REMOTE CONTROL UNIT, and select the SUB MENU SCREEN (See Fig. 2) from the SERVICE MENU.
SERVICE MENU → SUB MENU **1. IF**
2. V / C
3. AUDIO
4. DEF.
5. VSM PRESET

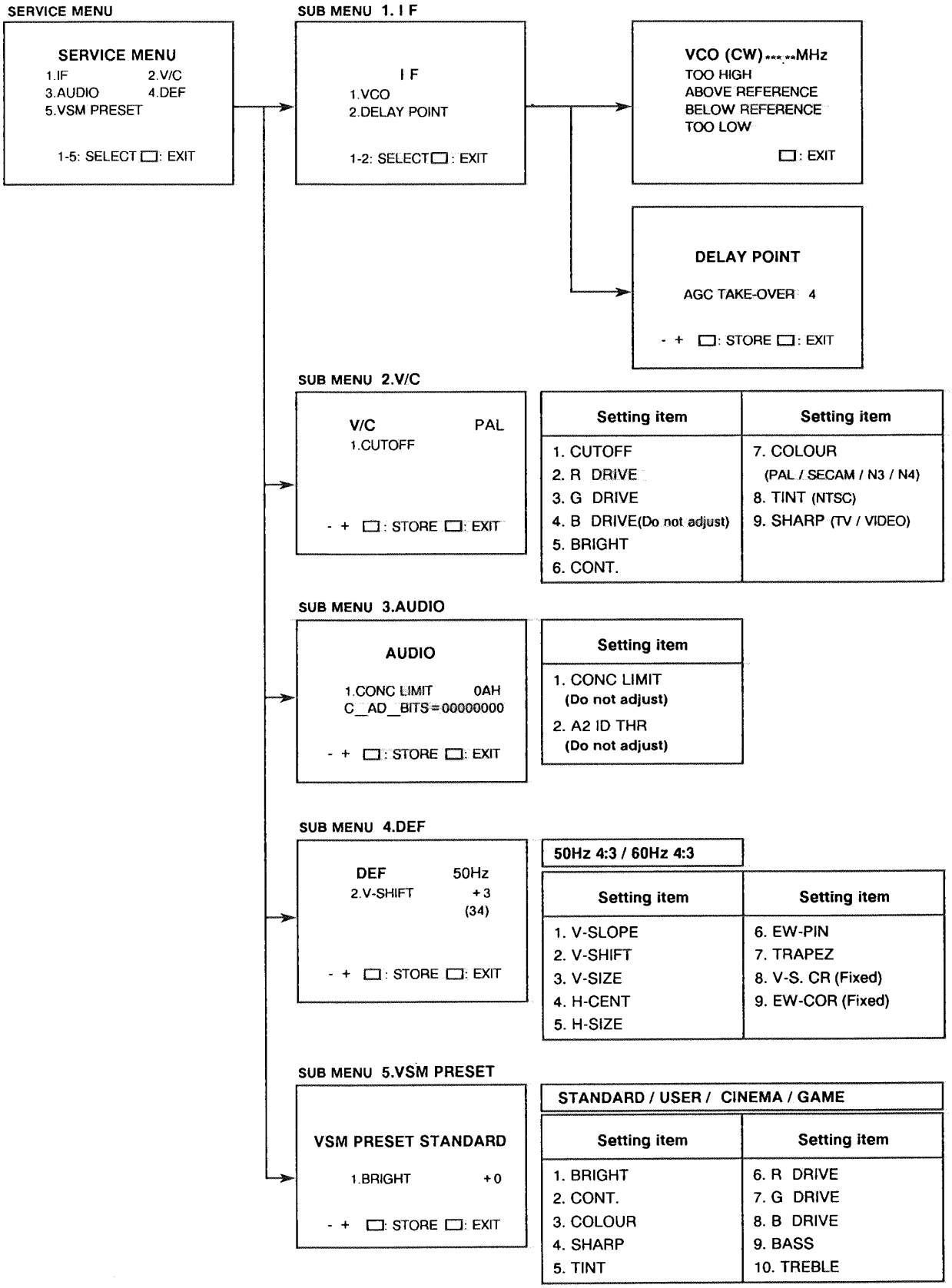


Fig. 2 SUB MENU SCREEN

(3) Method of Setting

1) Method of Setting **1. IF**

[1. VCO]

① 1 Key ..... Select **1.IF.**

② 1 Key ..... Select 1.VCO.

③ The VCO (CW) screen will be displayed in yellow when the AFC voltage is at a certain level and in blue when it is at other levels.

④ DISPLAY Key ..... As you press this twice, you will return to the **SERVICE MENU.**

[2. DELAY POINT]

① 1 Key ..... Select **1.IF.**

② 2 Key ..... Select 2.DELAY POINT.

③ FUNCTION -/+ Key ..... Set (adjust) the setting values of the setting items.

④ VIDEO/SOUND Key ..... Memorize the set value.
(Before storing the setting values in memory, do not press the CH, TV / EXT, DISPLAY, POWER ON / OFF keys - if you do, the values will not be stored in memory.)

⑤ DISPLAY Key ..... When this is pressed twice, you will return to the **SERVICE MENU.**

2) Method of setting **2.V/C, 3.AUDIO, 4.DEF and 5.VSM PRESET**

① 2 ~ 5 Keys ..... Select one from **2. V/C, 3. AUDIO, 4. DEF and 5. VSM PRESET.**

② FUNCTION UP/DOWN Key . Select setting items.

③ FUNCTION - / + Key ..... Set (adjust) the setting values of the setting items.
(When 1.CUTOFF of 2.V/C is selected, press its "-" or " + " FUNCTION key, and the whole screen will change to a faint horizontal line appearing in its center. Press the same "-" or " + " key again, and the screen will return to the original 1.CUTOFF screen.)

④ VIDEO/SOUND Key ..... Memorize the seting value.
(Before storing the setting values in memory, do not press the CH, TV / EXT, DISPLAY, POWER ON / OFF keys - if you do, the values will not be stored in memory.)

⑤ DISPLAY Key ..... Return to the **SERVICE MENU** screen.

(4) Release of SERVICE MENU

1) After completings the setting, return to the **SERVICE MENU**, then again press the DISPLAY key.

ADJUSTMENTS

B1 VOLTAGE CHECK

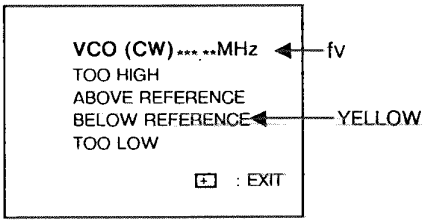
Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 Voltage	Signal generator DC Volt-meter	TP-91 (B1) TP-E (⏚) [X] CONNECTOR MAIN PWB		1. Receive a whole black signal. 2. Connect a DC voltmeter to TP-91 and TP-E(⏚). 3. Make sure that the voltage is in the bellow table. **B1**: **DC150 ± 2V**

FOCUS ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of FOCUS	Signal generator		FOCUS VR [In HVT]	1. Receive a cross-hatch signal. 2. While watching the screen, adjust the FOCUS VR to make the vertical and horizontal lines as fine and sharp as possible. 3. Make sure that when the screen is darkened, the lines remain in good focus.

IF CIRCUIT ADJUSTMENT

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of VCO	Remote control unit		T010 TRANSF.	• **Do not make any adjustment unless the adjustment is out of way and you cannot get correct PICTURE.** 1. Select 1.IF from the SERVICE MENU. 2. Press 1 key and select 1.VCO. 3. Select a receivable broadcast channel with the CHANNEL key. 4. Turn the core of T010 TRANSF. until the colour of the characters TOO HIGH displayed on the screen changes from blue to **yellow**. (Step 1) 5. Then slowly turn the core of T010 TRANSF. to the **left** until the colour of the characters BELOW REFERENCE changes from blue to **yellow**. (Step 3) 6. Press the display key three times to return to normal screen. 7. Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly.



Screen display	Step 1 → 2 → 3
TOO HIGH	**Yellow** → Blue → Blue
ABOVE REFERENCE	Blue → **Yellow** → Blue
BELOW REFERENCE	Blue → Blue → **Yellow**
TOO LOW	Blue → Blue

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of DELAY POINT (AGC)	Remote control unit		DELAY POINT (AGC TAKE-OVER)	1. Receive a black and white signal (colour off). 2. Select 1.IF from the SERVICE MENU. 3. Select 2.DELAY POINT by pressing the 2 key on the remote control. 4. Adjust the FUNCTION -/+ key until video noise disappears. 5. Press the VIDEO/SOUND key and memorize the set value. 6. Turn to other channels and make sure that there are not irregularities.

Setting (adjustment) item	Variable range	Initial setting value
DELAY POINT (AGC TAKE-OVER)	0~63	4

VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment part	Description
Setting of VSM PRESET	Remote control unit		1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. TINT 6. R DRIVE 7. G DRIVE 8. B DRIVE 9. BASS 10.TREBLE	1. Select 5.VSM PRESET from the SERVICE MENU. 2. Select STANDARD with the CINEMA/GAME key. 3. Adjust the FUNCTION UP/DOWN and FUNCTION -/+ key to bring the set values of 1.BRIGHT ~ 10.TREBLE to the values shown in the table . 4. Press the VIDEO/SOUND key and memorize the set value. 5. Respectively select the VSM PRESET mode for USER, CINEMA and GAME, and make similar adjustment as in 3 above.

Setting item \ VSM preset mode	STANDARD	USER	CINEMA	GAME
1. BRIGHT SETTING VALUE	0	0	0	+2
2. CONT. SETTING VALUE	+10	+10	+2	+2
3. COLOUR SETTING VALUE	0	0	-2	0
4. SHARP SETTING VALUE	+2	+2	-2	-2
5. TINT SETTING VALUE	0	0	0	0
6. R DRIVE SETTING VALUE	0	0	0	0
7. G DRIVE SETTING VALUE	0	0	-2	0
8. B DRIVE SETTING VALUE	0	0	-6	0
9. BASS SETTING VALUE	0	0	+6	+4
10.TREBLE SETTING VALUE	0	0	+2	0

SETTING VALUES OF VSM PRESET

VIDEO/CHROMA CIRCUIT ADJUSTMENT

- The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial seting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- * Items in parentheses ( ) are automatically set to below table.

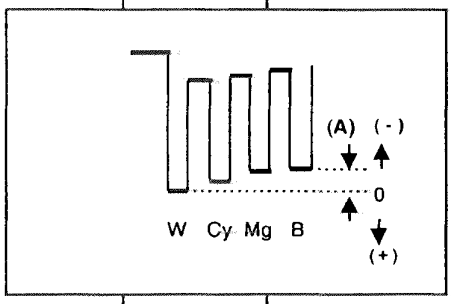
Setting (adjustment) item	Variable range	Initial setting value
1. CUTOFF	ON / OFF	OFF
2. R DRIVE	-31 ~ +32	+12
3. G DRIVE	-31 ~ +32	+2
4. B DRIVE (Do not adjust)	-31 ~ +32	0 (Fixed)
5. BRIGHT	-31 ~ +32	+6
6. CONT.	-41 ~ +22	-5

Setting (adjustment) item \ Colour system		Variable range	PAL	SECAM	NTSC 3.58	NTSC 4.43
7. COLOUR initial setting value	TV	-31 ~ +32	+3	+3	——	——
	Comp. VIDEO		(+3)	(+3)	+12	(+12)
8. TINT initial setting value	Comp. VIDEO	-31 ~ +32	——	——	-2	(-2)
9. SHARP	TV	-31 ~ +32	+2	0	——	——
	Comp. VIDEO		0	0	0	(0)

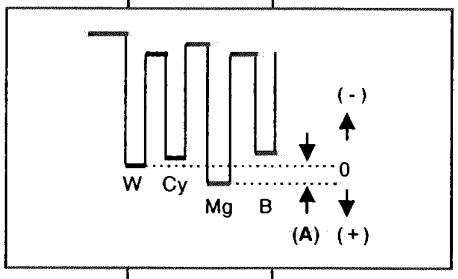
Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of WHITE BALANCE (Low light)	Signal generator Remote control unit		R. CUT OFF VR G. CUT OFF VR B. CUT OFF VR SCREEN VR [In HVT]	1. Receive a black and white signal (colour off). 2. Select 2.V/C from the SERVICE MENU. 3. Select 1.CUT OFF with the FUNCTION UP/DOWN key. 4. Show one horizontal line with the FUNCTION -/+ key. With the SCREEN VR, adjust so that the horizontal line will not be too bright. 5. Turn the CUT OFF VR respectively for R, G and B fully to the left (to the left direction when seen from the rear). 6. Gradually turn the SCREEN VR from the left end to the right direction to bring one of the red, green and blue colours faintly visible. 7. By adjusting the CUT OFF VR, bring out the other 2 colours and make one horizontal line visible in white 8. Turn the SCREEN VR and bring one white horizontal line faintly visible. 9. Turn 1.CUTOFF off.
Adjustment of WHITE BALANCE (High light)	Signal generator Remote control unit		2. R. DRIVE 3. G. DRIVE 4. B. DRIVE (Do not adjust)	1. Receive a black and white signal (colour off). 2. Select 2.V/C with the SERVICE MENU. 3. Select 2.R DRIVE and 3.G DRIVE with the FUNCTION UP/DOWN key. 4. Change the screen colour to white with the FUNCTION -/+ key. 5. Press the VIDEO/SOUND key, and memorize the respectively set values.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB BRIGHT	Remote control unit		5. BRIGHT	1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 5.BRIGHT with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION -/+ key. 5. If the brightness is not the best with the initial set value, make fine adjustment until you get the best brightness. 6. Press the VIDEO/SOUND key and memorize the set value.
Adjustment of SUB CONT.	Remote control unit		6. CONT.	1. Receive any broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 6.CONT. with the FUNCTION UP/DOWN key. 4. Set the initial setting value with the FUNCTION -/+ key. 5. If the contrast is not the best with the initial set value, make fine adjustment until you get the best contrast. 6. Press the VIDEO/SOUND key and memorize the set value.
Adjustment of SUB COLOUR I	Remote control unit		7. COLOUR	**[Method of adjustment without using measuring instrument]**
			PAL COLOUR	**(PAL COLOUR)** 1. Receive a PAL broadcast. 2. Select 2.V/C from the SERVICE MENU. 3. Select 7.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value for PAL COLOUR with the FUNCTION -/+ key. 5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour. 6. Press the VIDEO/SOUND key and memorize the set value.
			SECAM COLOUR	**(SECAM COLOUR)** 7. Receive a SECAM broadcast. Make fine adjustment of SECAM COLOUR as previously.
			NTSC COLOUR	**(NTSC 3.58 COLOUR)** 8. Input NTSC3.58MHz COMPOSITE VIDEO signal from the EXT terminal. 9. Make similar fine adjustment of NTSC3.58 COLOUR as previously.
				(NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the same value as NTSC 3.58.

Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB COLOUR II	Signal generator Oscilloscope Remote control unit	TP-47B TP-E(⏚) [CRT SOCKET PWB]	7. COLOUR	**[Method of adjustment using measuring instrument]**
			PAL COLOUR	**(PAL COLOUR)** 1. Receive a PAL full field colour bar signal (75% white). 2. Select 2.V/C from the SERVICE MENU. 3. Select 7.COLOUR with the FUNCTION UP/DOWN key. 4. Set the initial setting value of PAL COLOUR with the FUNCTION -/+ key. 5. Connect the oscilloscope to TP-47B and TP-E(⏚). 6. Adjust PAL COLOUR and bring the value of **(A)** in the illustration to -10V (voltage difference between white and blue). 7. Press the VIDEO/SOUND key and memorize the seting value.
			SECAM COLOUR	**(SECAM COLOUR)** 1. Receive a SECAM full field colour bar signal (75% white). 2. Set the initial setting value of SECAM COLOUR with the FUNCTION -/+ key. 3. Adjust SECAM COLOUR and bring the value of **(A)** of the illustration to 0V. 4. Press the VIDEO/SOUND key and memorize the set value.
			NTSC COLOUR	**(NTSC 3.58 COLOUR)** 1. Input NTSC3.58MHz COMPOSITE VIDEO signal (full field colour bar 75% white) from the EXT terminal. 2. Set the initial setting value of NTSC3.58 COLOUR with the FUNCTION -/+ key. 3. Adjust NTSC3.58 COLOUR and bring the value of **(A)** of the illustration to 0V. 4. Press the VIDEO/SOUND key and memorize the set value.
				(NTSC 4.43 COLOUR) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the same value as NTSC 3.58.



Item	Measuring instrument	Test point	Adjustment part	Description
Adjustment of SUB TINT I	Remote control unit		8. TINT	**[Method of adjustment without using measuring instrument]**
			NTSC 3.58 TINT	**(NTSC 3.58 TINT)** 1. Input COMPOSITE VIDEO signal of NTSC3.58MHz from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 8.TINT with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION -/+ key. 5. If you cannot get the best tint with the initial setting value, make fine adjustment until you get the best tint. 6. Press the VIDEO/SOUND key and memorize the set value.
				(NTSC 4.43 TINT) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the same value as NTSC 3.58.
Adjustment of SUB TINT II	Signal generator Oscilloscope Remote control unit	TP-47B TP-E(⏚) [CRT SOCKET PWB]	8. TINT	**[Method of adjustment using measuring instrument]**
			NTSC 3.58 TINT	**(NTSC 3.58 TINT)** 1. Input COMPOSITE VIDEO signal (full field colour bar 75% white) of NTSC3.58MHz from the EXT terminal. 2. Select 2.V/C from the SERVICE MENU. 3. Select 8.TINT with the FUNCTION UP/DOWN key. 4. Set the initial setting value of NTSC 3.58 TINT with the FUNCTION -/+ key. 5. Connect the oscilloscope to TP-47B and TP-E(⏚). 6. Adjust NTSC3.58 TINT to bring the value of (A) of the illustration to 0V (voltage difference between white and magenta). 7. Press the VIDEO/SOUND key and memorize the setting value.
				(NTSC 4.43 TINT) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the same value as NTSC 3.58.
Adjustment of SHARP	Remote control unit		9. SHARP	1. Receive any broadcast. 2. Select 2. V/C from the SERVICE MENU. 3. Select 9. SHARP with the FUNCTION UP / DOWN key. 4. Set the initial setting value with the FUNCTION -/+ key. 5. Press the VIDEO / SOUND key and memorize the setting value.



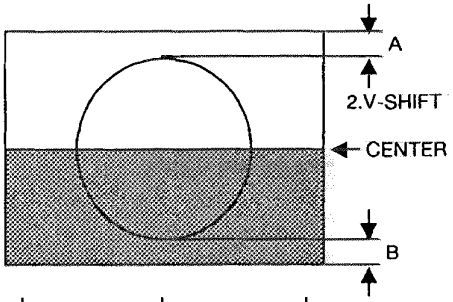
DEFLECTION CIRCUIT ADJUSTMENT

- There are 2 modes of adjustment —— ① 50Hz 4 : 3 and ② 60Hz 4 : 3 —— depending upon the kind of signals (VERTICAL FREQUENCY 50Hz / 60Hz) .
  - When adjusted in the ① 50Hz 4 : 3 mode, the mode ② will be linked to the mode ① and will be automatically adjusted for the same value.
  - When adjusted in the mode ② , only this mode will be adjusted singly.

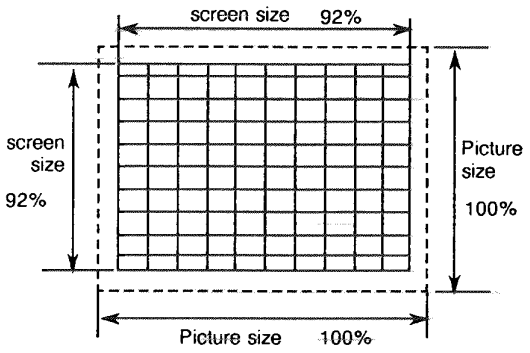
- **The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.**
  The setting values which adjust the screen to the optimum condition can be different from the initial set values.

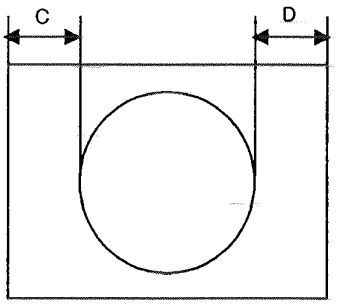
Setting (adjustment) item	Adjustment name	Variable range	Initial setting value	
			50Hz 4:3	60Hz 4:3
1. V-SLOPE	Vertical hight (Size of bottom side of screen)	-31~ +32	+5	0
2. V-SHIFT	Vertical center	-31~ +32	+3	-1
3. V-SIZE	Vertical hight	-31~ +32	+7	-2
4. H-CENT	Horizontal center	-31~ +32	+4	+9
5. H-SIZE	Horizontal width	-31~ +32	+23	-1
6. EW-PIN	Side pin correction	-31~ +32	-7	0
7. TRAPEZ	Trapezoidal distortion correction	-31~ +32	+1	-3
8. V-S.CR	Vertical hight correction	-31~ +32	-3 (Fixed)	0 (Fixed)
9. EW-COR	Side pin four corner correction	-31~ +32	-10 (Fixed)	-2 (Fixed)

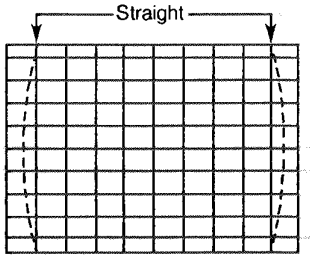
Item	Measuring instrument	Test point	Adjustment part	Description
1. Adjustment of VERTICAL SLOPE	Signal generator Remote control unit		1. V-SLOPE	[①50Hz 4:3] 1. Receive a circle pattern signal of vertical frequency 50Hz. 2. Select 4.DEF from the SERVICE MENU. 3. Select 1.V-SLOPE with the FUNCTION UP/DOWN key. 4. Set the initial setting value of V-SLOPE (50Hz 4:3) with the FUNCTION -/+ key. 5. Adjust V-SLOPE and make the screen's center line and the blanking line coincide.
2. Adjustment of VERTICAL SHIFT			2. V-SHIFT	6. Select 2.V-SHIFT and set the initial setting value. 7. Adjust V-SHIFT to make A = B. 8. Press the VIDEO / SOUND key and memorize the set value.



Item	Measuring instrument	Test point	Adjustment part	Description
3. Adjustment of VERTICAL SIZE			3. V-SIZE	9. Receive a cross-hatch signal. 10. Adjust 3.V-SIZE and set the initial setting value. 11. Adjust V-SIZE and make the vertical screen size 92% of the picture size. 12. Press the VIDEO / SOUND key and memorize the set value.
4. Adjustment of HORI. CENTER			4. H-CENT	13. Receive a circle pattern signal. 14. Select 4.H-CENT and set the initial setting value. 15. Adjust H-CENT to make C = D. 16. Press the VIDEO/SOUND key and memorize the set value.
5. Adjustment of HORI. SIZE			5. H-SIZE	17. Receive a cross-hatch signal. 18. Select 5.H-SIZE and set the initial setting value. 19. Adjust H-SIZE and make the horizontal screen size 92% of the picture size.
6. Adjustment of EW-PIN			6. EW-PIN	20. Select 6.EW-PIN and set the initial setting value. 21. Adjust EW-PIN and make the 1st vertical lines at the left and right edges of the screen straight. Also make sure that the 2nd vertical lines are also straight.







Item	Measuring instrument	Test point	Adjustment part	Description
7. Adjustment of TRAPEZ			7. TRAPEZ	22. Select 7.TRAPEZ and set the initial setting value. 23. Adjust TRAPEZ and bring the vertical lines at the right and left edges of the screen in parallel.
8. Adjustment of V-S. CR			8. V-S. CR	24. Select 8.V-S. CR and set the initial setting values. 25. Adjust V-S. CR and make the gaps between the horizontal lines same. ★ No alignment, but adjust this mode if result of no alignment is too bad.
9. Adjustment of EW-COR			9. EW-COR	26. Select 9.EW-COR and set the initial setting values. 27. Adjust EW-COR and make the vertical lines at the four corners of the screen straight. 28. Press the VIDEO/SOUND key and memorize the set values. ★ No alignment, but adjust this mode if result of no alignment is too bad. 29. Make sure that the adjustement is properly done on the screen of ② 60Hz 4 : 3 .

AUDIO CIRCUIT

- **Do not touch 3.AUDIO (1. CONC LIMIT, 2. A2 ID THR) of the SERVICE MENU as it requires no adjustment.**

3. AUDIO

Setting (adjustment) item	Variable range	Initial setting value (fixed)
1. CONC LIMIT **(Do not adjust)**	00H~FFH	0AH
2. A2 ID THR **(Do not adjust)**	00H~FFH	19H

AV-25TS1EN STANDARD CIRCUIT DIAGRAM

■NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	:PAL Color bar signal
(2)Setting positions of each knob/button and variable resistor	:Original setting position when shipped
(3)Internal resistance of tester	:DC 20kΩ/V
(4)Oscilloscope sweeping time	:H ⇒20μS/div :V ⇒5mS/div :Others ⇒ Sweeping time is specified
(5)Voltage values	:All DC voltage values

* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL[EXAMPLE]

●In the PW board :R1209→R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

●Resistance value

No unit	:[Ω]
K	:[KΩ]
M	:[MΩ]

●Rated allowable power

No indication	:1/6[W]
Others	:As specified

●Type

No indication	:Carbon resistor
OMR	:Oxide metal film resistor
MFR	:Metal film resistor
MPR	:Metal plate resistor
UNFR	:Uninflammable resistor
FR	:Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

●Capacitance value

1or higher	:[pF]
less than 1	:[μF]

●Withstand voltage

No indication	:DC50[V]
Others	:DC withstand voltage[V]
AC indicated	:AC withstand voltage[V]

* Electrolytic Capacitors

47/50[Example]:Capacitance value[μF]/withstand voltage[V]

●Type

No indication	:Ceramic capacitor
MY	:Mylar capacitor
MM	:Metalized mylar capacitor
PP	:Polypropylene capacitor
MPP	:Metalized polypropylene capacitor
MF	:Metalized film capacitor
TF	:Thin film capacitor
BP	:Bipolar electrolytic capacitor
TAN	:Tantalum capacitor

(3)Coils

No unit	:[μH]
Others	:As specified

(4)Power Supply

:B1
:B2(12V)
:8V
:5V

* Respective voltage values are indicated.

(5)Test Point

: Test point
: Only test point display

(6)Connecting method

: Connector
: Wrapping or soldering
: Receptacle

(7)Ground symbol

: LIVE side ground
: ISOLATED(NEUTRAL) side ground
: EARTH ground
: DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

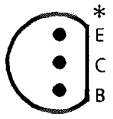
(2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

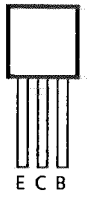
May 1996 No.51088

SEMICONDUCTOR SHAPES (* = Bottom view)

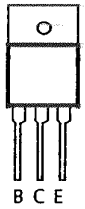
TRANSISTORS



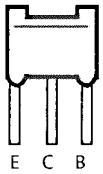
2SA1013(0)
2SA673(C)
2SC2240(GB)
2SC1906
2SA966(0Y)-T
2SC1815(YG)
2SC2482(C1)
2SC4722(NP)
2PA1015(YG)
2PC1815(YG)



2SA933AS(QR)
2SA933S(QR)
2SC1740S(QR)
2SC2785(JH)
DTC124ESA-T
DTC323TS

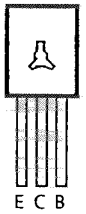


2SD1554-C1
2SD1878-YD
2SD1876-YD
BU2506DX
MTA2N60E
2SC4544-C1

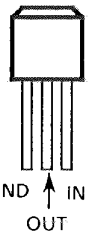


2SC4502
2SC5082(L-P)
2SC5083(L-P)

2SK301(Q)
BSN274



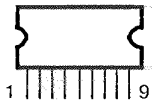
2SC2371(MLK)
2SC3271(NP)

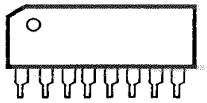


DTC144ESA
DTA144GS
DTC144ES
DTA144ES

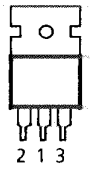
ICs

TDA8351 / N3

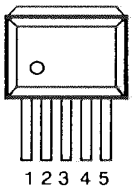




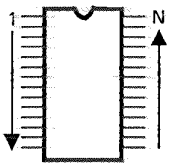
LA7016



S1854-C1
S1854-C2

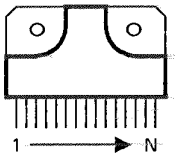


LA7975

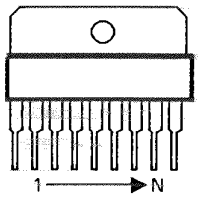


MSP3410-SDIL
SAA5281P / E / M3
M37201M6-B44SP
P83C654FBP / 541
MN1873237JKH6
M52343SP
M37102M8-C41SP

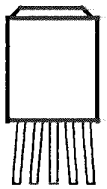
1 → 5



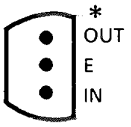
LA7838
UPC1488H
LA7837
TA8200AH



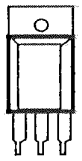
AN5265



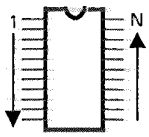
L78LR05E-MA



KIA78L08BP



KIA7805PI AN7805F
KIA7808PI AN78N12
AN78M05



TEA6416 TEA5114A
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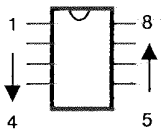
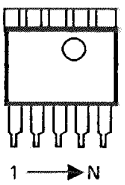
U3660M-B BU4066BC
TDA4665

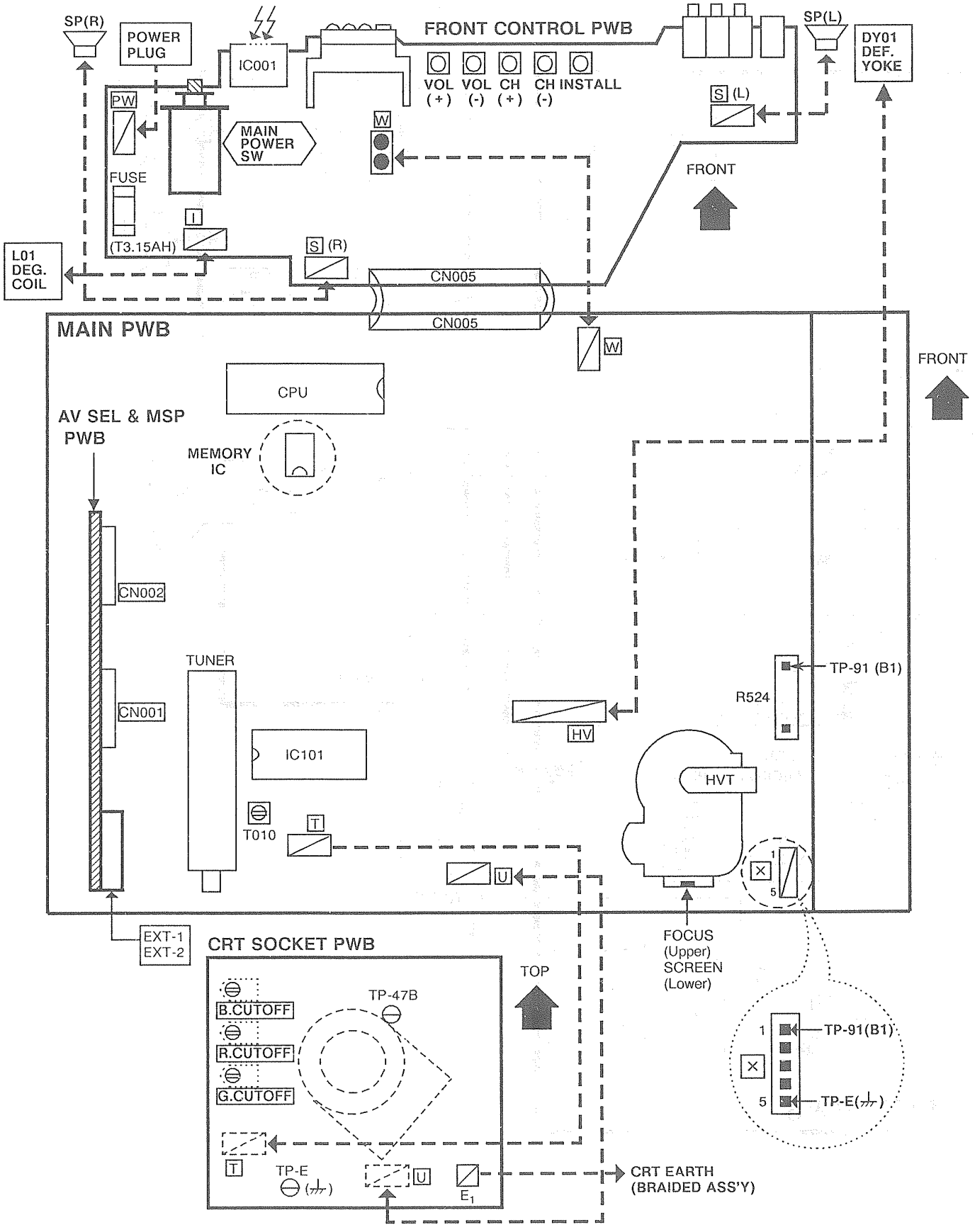


AT24C08-25TS1EN
ST93C46AB1
AT24C04-25SX1EK
AT93C56-10PC
XL24C04P-21ME

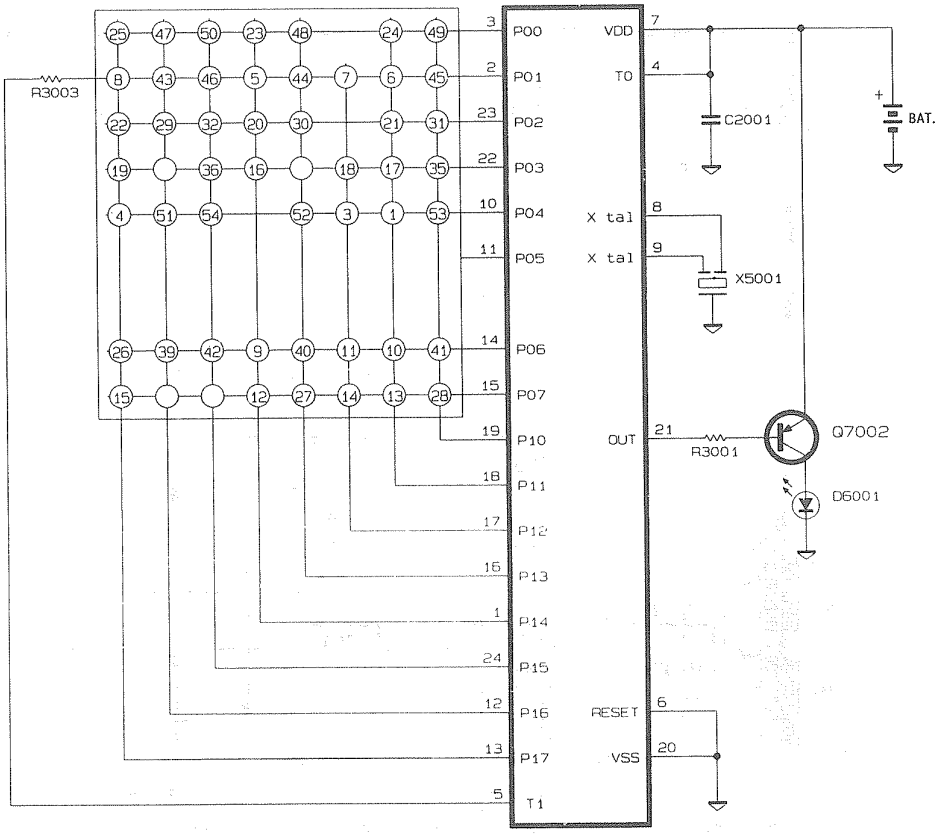


STR-S6707
STR-S6706

MAIN PARTS LOCATION AND ALIGNMENTS LOCATION



REMOTE CONTROL TRANSMITTER CIRCUIT DIAGRAM (RM-C761-1E)

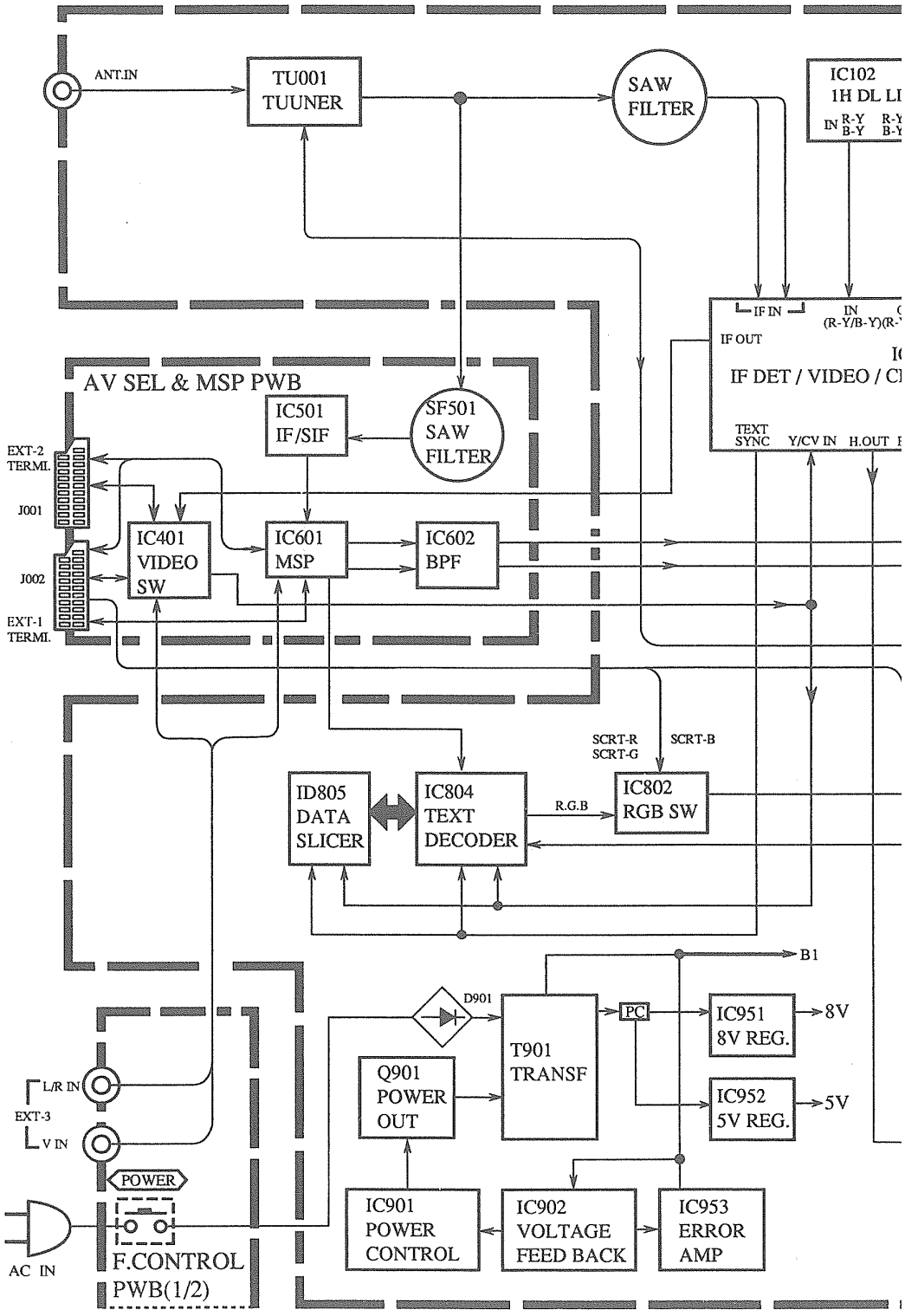


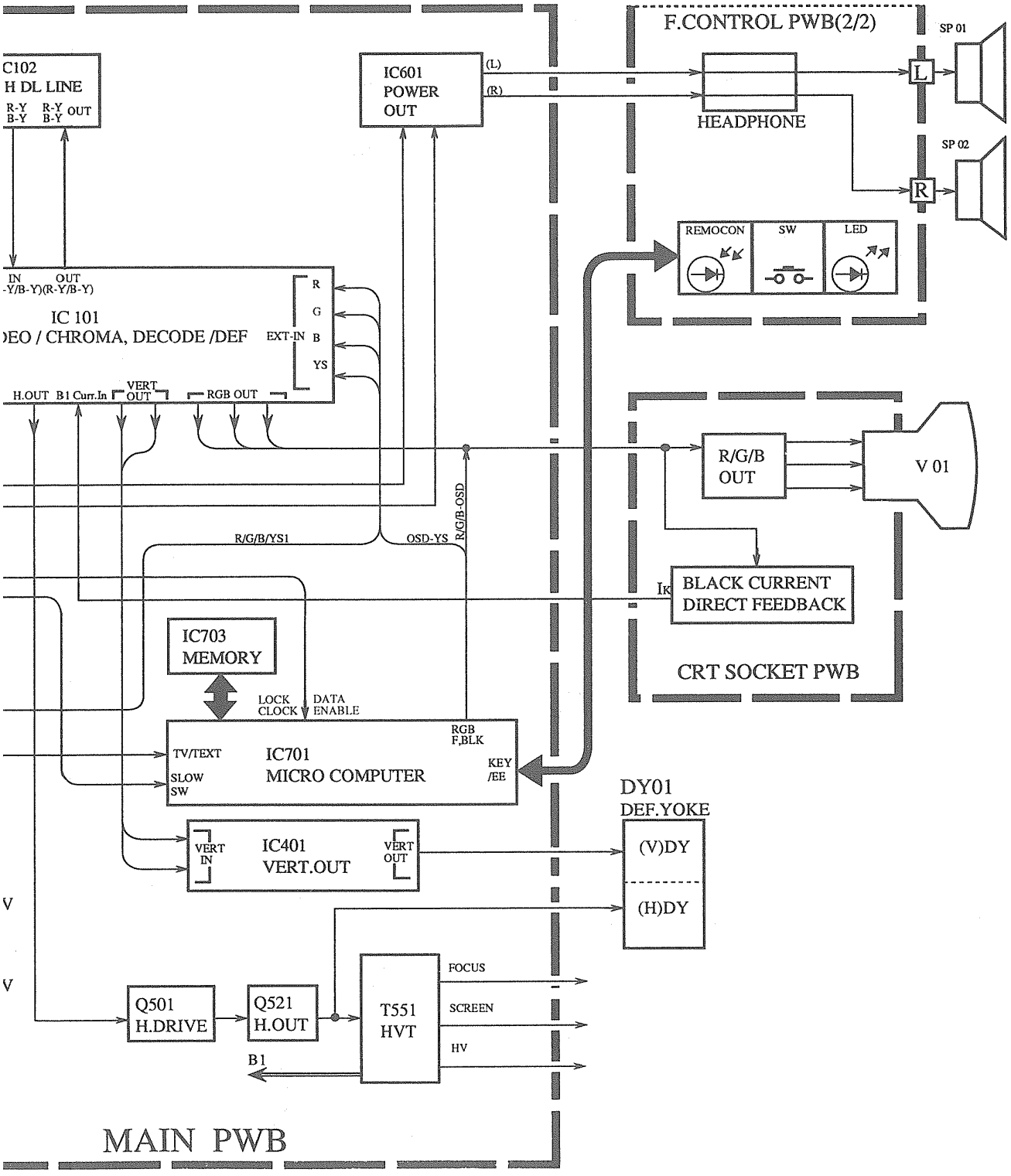
KEY FUNCTION

Key No.	FUNCTION	Key No.	FUNCTION	Key No.	FUNCTION
1	STANDBY	19	VOLUME+	—	———
—	———	20	DISPLAY	—	———
3	TV/EXT	21	———	39	TV/EXT/MIX
4	S-IN	22	MUTE	40	CANCEL
5	1	23	———	41	SUB PAGE
6	2	24	———	42	MODE
7	3	25	———	43	INDEX
8	PROG+	26	P/S/N	44	HOLD
9	4	27	———	45	REVEAL
10	5	28	ECO	46	STORE
11	6	29	EXT 2	47	RED
12	7	30	SLEEP TIMER	48	GREEN
13	8	31	I/II	49	YELLOW
14	9	—	———	50	BLUE/REC.
15	PROG-	—	———	51	REWIND
—	———	—	———	52	PLAY
17	0	35	16:9	53	WIND
18	VOLUME-	36	CINEMA	54	STOP

RM-C761-1E

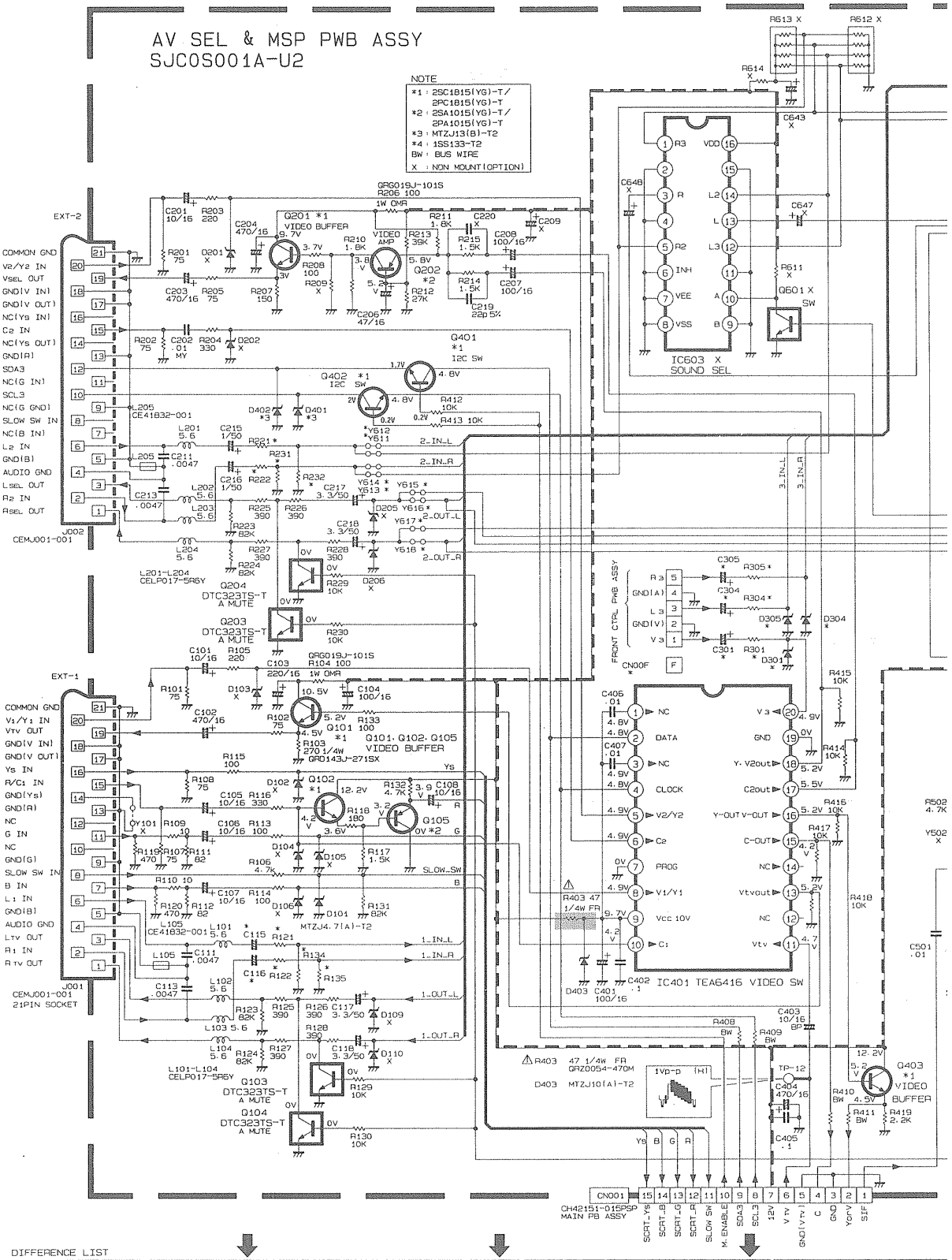
BLOCK DIAGRAM




F.CONTROL PWB(2/2)
SP 01
SP 02
L
R
HEADPHONE
REMOCON
SW
LED
C102
H DL LINE
R-Y
B-Y
R-Y
B-Y
OUT
IC601
POWER
OUT
(L)
(R)
IN
OUT
-Y/B-Y)(R-Y/B-Y)
IC 101
)EO / CHROMA, DECODE /DEF
EXT-IN
R
G
B
YS
H.OUT
B1 Curr.In
VERT
OUT
RGB OUT
R/G/B
OUT
V 01
R/G/B/YS1
OSD-YS
R/G/B-OSD
IK
BLACK CURRENT
DIRECT FEEDBACK
CRT SOCKET PWB
IC703
MEMORY
LOCK
CLOCK
DATA
ENABLE
RGB
F.BLK
TV/TEXT
SLOW
SW
IC701
MICRO COMPUTER
KEY
/EE
DY01
DEF.YOKE
VERT
IN
IC401
VERT.OUT
VERT
OUT
(V)DY
(H)DY
V
V
Q501
H.DRIVE
Q521
H.OUT
T551
HVT
FOCUS
SCREEN
HV
B1
MAIN PWB

CIRCUIT DIAGRAMS AND PWB PATTERNS

AV SEL. & MSP PWB CIRCUIT DIAGRAM



DIFFERENCE LIST

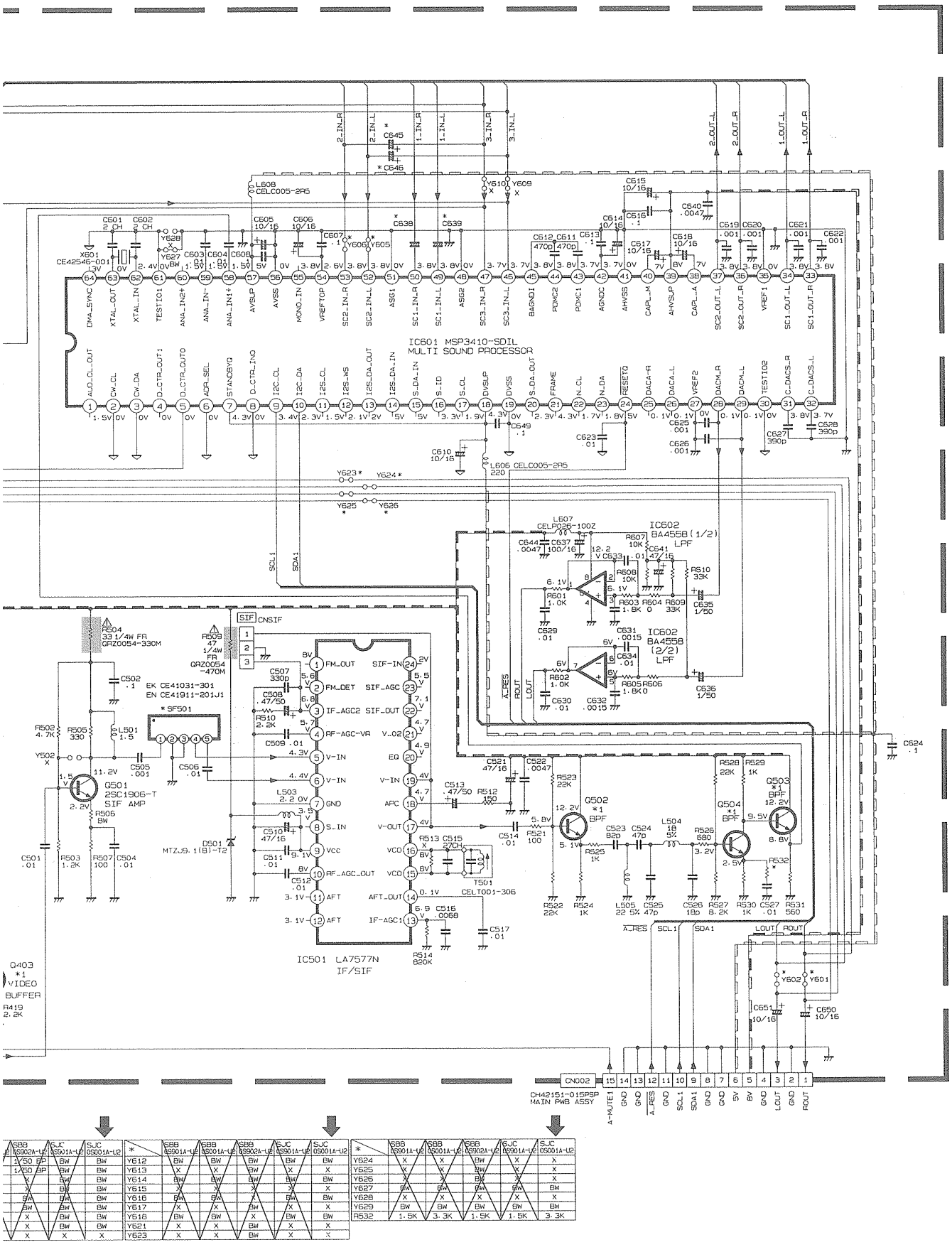
*	SBB AS001A-U2	SBB AS001A-U2	SBB AS002A-U2	SJC AS001A-U2	SJC OS001A-U2
CN00F	X	X	X	CH41169 -005Y	CH41169 -005Y
D301	X	X	X	MTZJ13 (B)-T2	MTZJ13 (B)-T2
D304	X	X	X	MTZJ13 (B)-T2	MTZJ13 (B)-T2
D305	X	X	X	MTZJ13 (B)-T2	MTZJ13 (B)-T2
R301	X	X	X	330	330
R304	X	X	5.6K	470	470

*	SBB AS001A-U2	SBB AS001A-U2	SBB AS002A-U2	SJC AS001A-U2	SJC OS001A-U2
R305	X	X	5.6K	470	470
C301	X	X	X	47/16	47/16
C304	X	X	X	1/50	1/50
C305	X	X	X	1/50	1/50
C115	1/50 BP	1/50 BP	1/50	1/50 BP	1/50 BP
C116	1/50 BP	1/50 BP	1/50	1/50 BP	1/50 BP
R121	470	470	2.7K	470	470
R122	470	470	2.7K	470	470
R134	X	X	10K	X	X

*	SBB AS001A-U2	SBB AS001A-U2	SBB AS002A-U2	SJC AS001A-U2	SJC OS001A-U2
R135	X	X	10K	X	X
R221	470	470	2.7K	470	470
R222	X	X	10K	X	X
R231	470	470	2.7K	470	470
R232	X	X	10K	X	X
SF501	CE41031 -301	CE41131 -201J1	CE41031 -301	CE41031 -301	CE41911 -201J1
Y501	BW	BW	BW	BW	BW
Y502	X	X	X	X	X

*	SBB AS001A-U2	SBB AS001A-U2	SBB AS002A-U2	S
C638	BW	BW	1/50 BP	
C639	BW	BW	1/50 BP	
Y601	BW	BW	X	
Y602	BW	BW	X	
Y605	BW	BW	BW	
Y606	BW	BW	BW	
Y609	X	X	X	
Y610	X	X	X	
Y611	X	X	X	

Refer to the following PWB pattern. : AV SEL. & MSP PWB PATTERN page 2-19～2-20 .

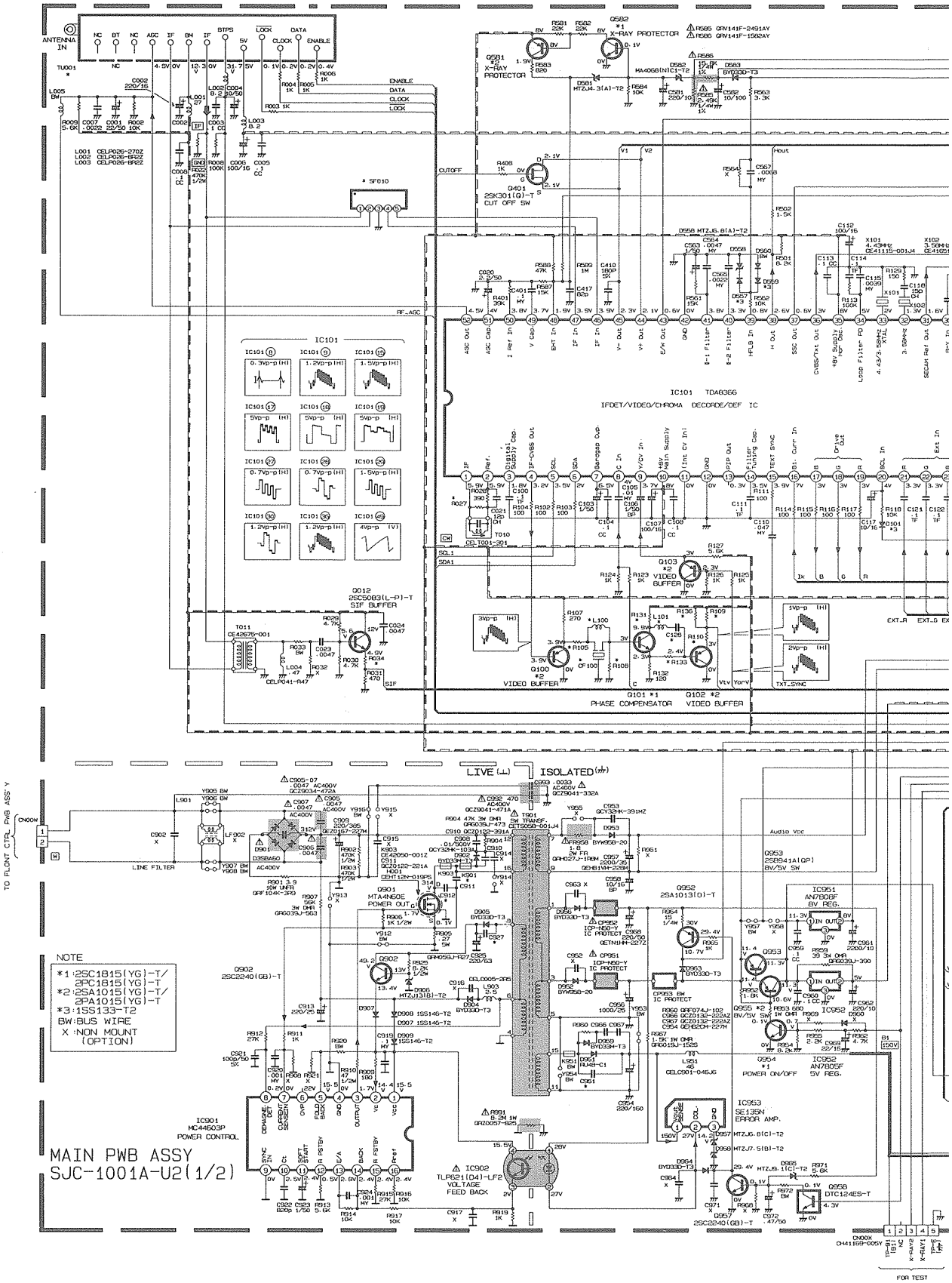


	SBB Q5902A-U2	SJC Q5901A-U2	SJC Q5001A-U2
1	50 BP	BW	BW
1	50 BP	BW	BW
X		BW	BW
X		BW	BW
BW		BW	BW
BW		BW	BW
X		BW	BW
X		BW	BW
X		X	X

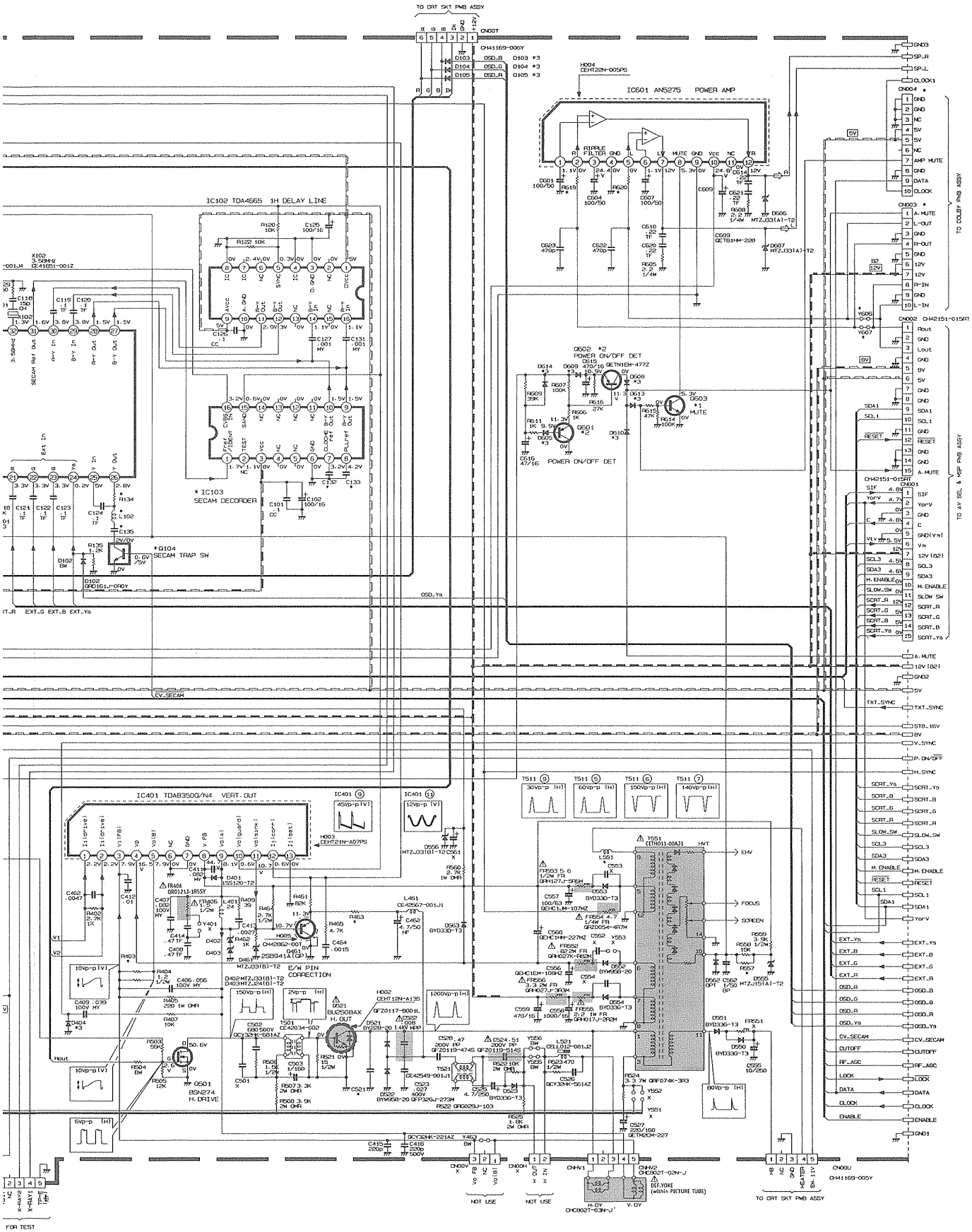
*	SBB Q5901A-U2	SBB Q5001A-U2	SBB Q5902A-U2	SJC Q5901A-U2	SJC Q5001A-U2
Y612	BW	BW	BW	BW	BW
Y613	X	X	BW	X	X
Y614	BW	BW	BW	BW	BW
Y615	X	X	X	X	X
Y616	BW	BW	X	BW	BW
Y617	X	X	BW	X	X
Y618	BW	BW	X	BW	BW
Y621	X	X	BW	X	X
Y623	X	X	BW	X	X

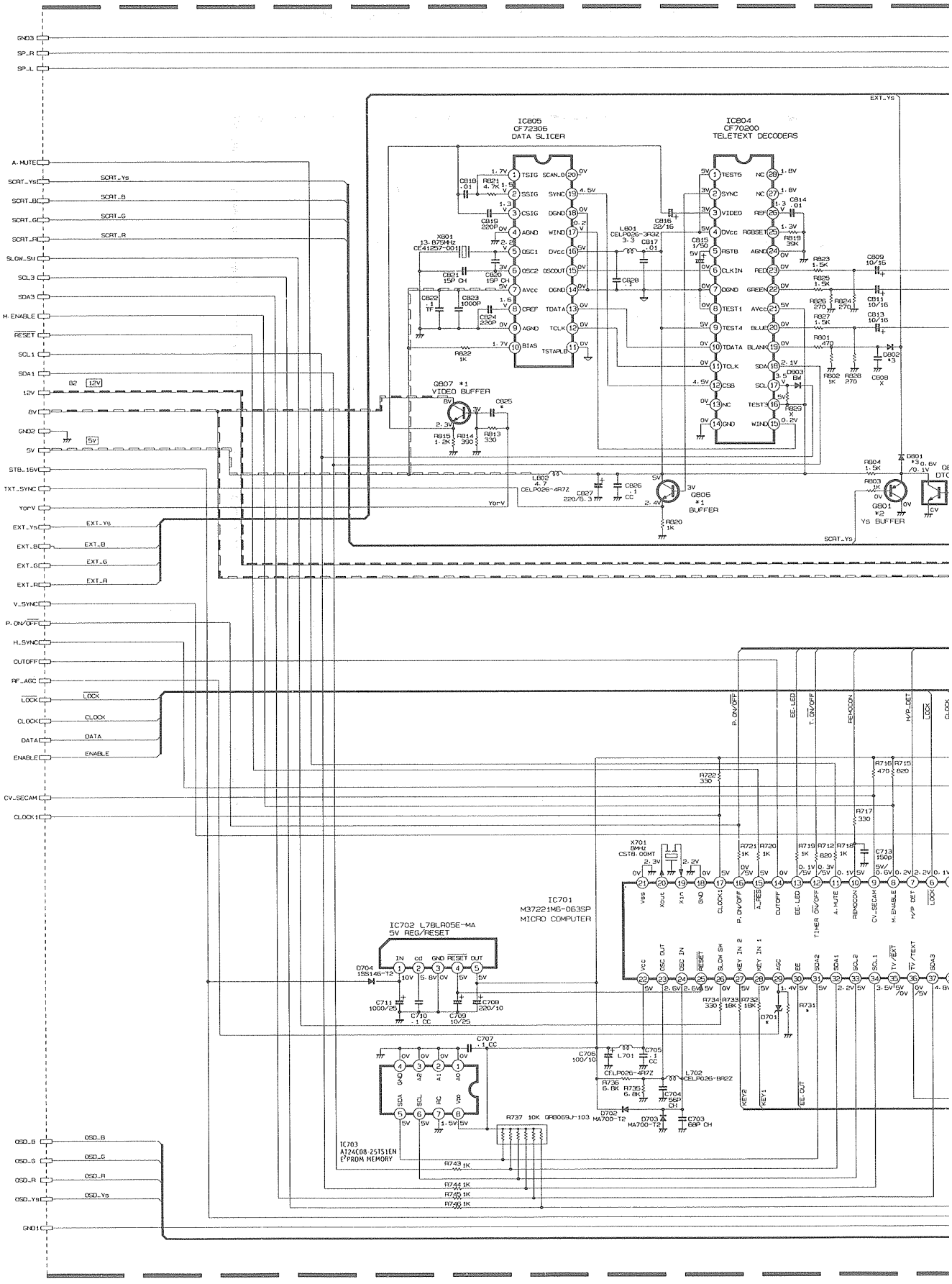
*	SBB Q5901A-U2	SBB Q5001A-U2	SBB Q5902A-U2	SJC Q5901A-U2	SJC Q5001A-U2
Y624	X	X	BW	X	X
Y625	X	X	BW	X	X
Y626	X	X	BW	X	X
Y627	BW	BW	BW	BW	BW
Y628	X	X	X	X	X
Y629	BW	BW	BW	BW	BW
R532	1.5K	3.3K	1.5K	1.5K	3.3K

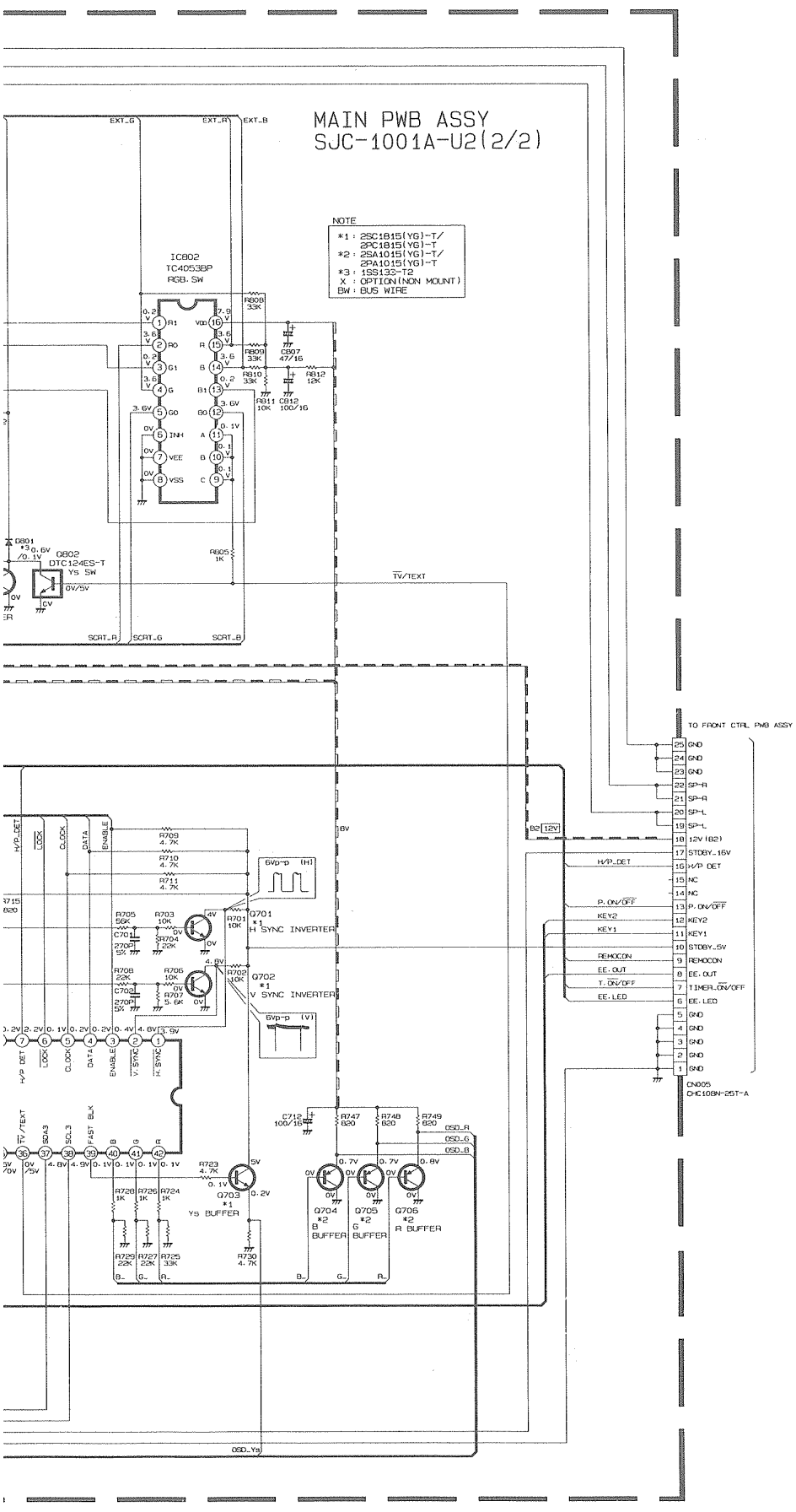
MAIN PWB CIRCUIT DIAGRAM



Refer to the following PWB pattern. : MAIN PWB PATTERN page 2-21～2-22 .




IC805
CF72305
DATA SLICER
IC804
CF70200
TELETEXT DECODERS
IC701
M37221M6-063SP
MICRO COMPUTER
IC702 L78LR05E-MA
5V REG/RESET
IC703
AT24C08-25TS1EN
E²PROM MEMORY
Q807 *1
VIDEO BUFFER
Q805
*1
BUFFER
Q801
*2
YS BUFFER
X801
13.875MHz
CE41257-001
X701
8MHz
CST8.00MT
GND3
SP_R
SP_L
A_MUTE
SCRT_YS
SCRT_B
SCRT_G
SCRT_R
SLOW_SW
SCL3
SDA3
M_ENABLE
RESET
SCL1
SDA1
12V
8V
GND2
5V
STB_16V
TXT_SYNC
YorV
EXT_YS
EXT_B
EXT_G
EXT_R
V_SYNC
P_ON/OFF
H_SYNC
CUTOFF
RF_AGC
LOCK
CLOCK
DATA
ENABLE
CV_SECAM
CLOCK1
OSD_B
OSD_G
OSD_R
OSD_YS
GND1



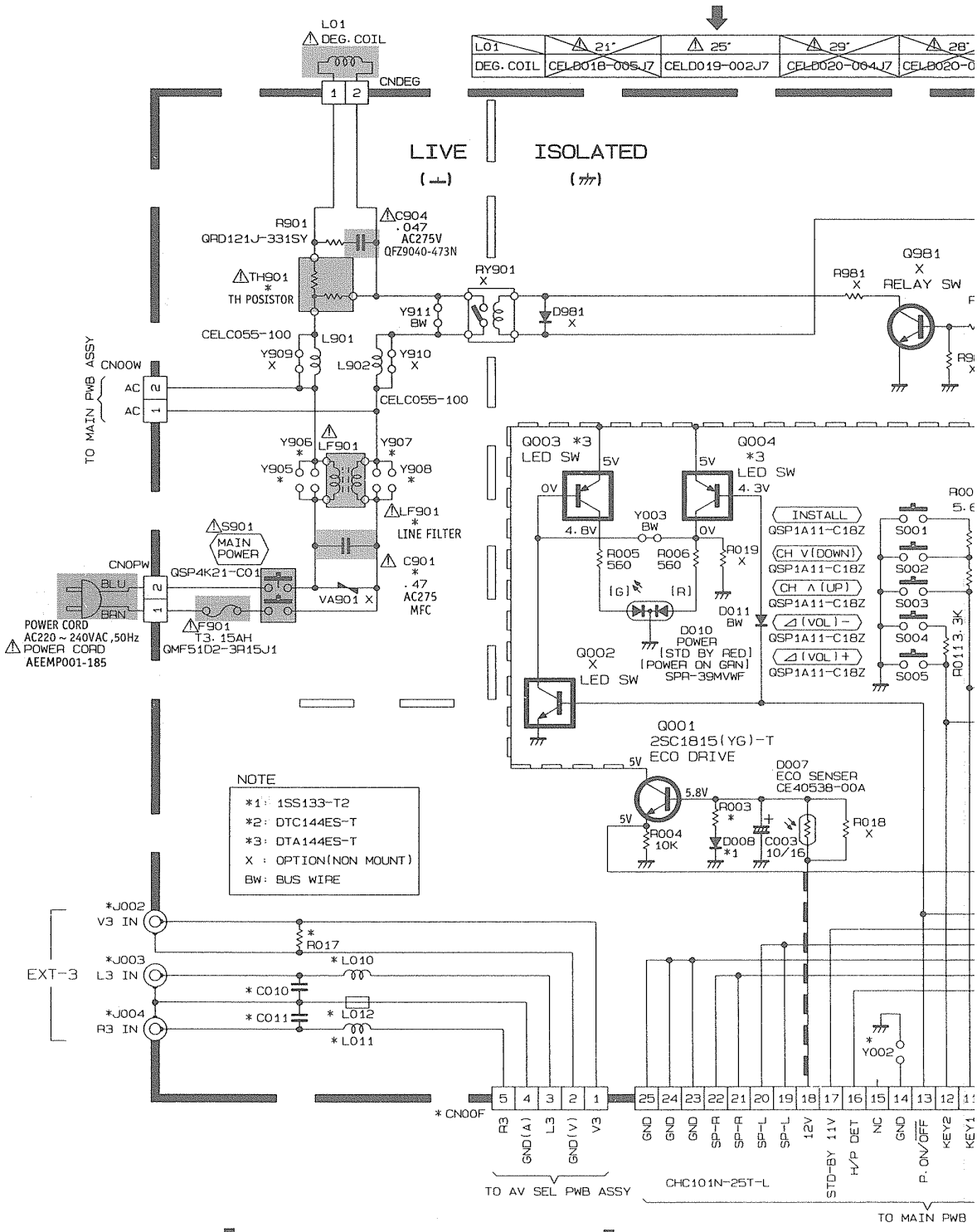
DIFFERENCE LIST (Page2-9~2-10)

MODEL NAME	AV-25TS1EK	AV-25TS1EN	
*	SJC-1901A-U2	SJC-1001A-U2	SJC-1003A-U2
TU001	CEET321-B01	CEEK472-B01	CEEK472-B01
SF010	CE42573-301	CE42573-701	CE42573-701
IC103	X	TDA8395	TDA8395
CF100	TPSH 6.0MB	TPS5.5 MW	TPS5.5 MW
Q104	X	DTC124ES-T	DTC124ES-T
L100	CELP026-100Z	CELP026-6R8Z	CELP026-6R8Z
L101	CELP026-100Z	CELP026-8R2Z	CELP026-8R2Z
L102	X	CELP027-330Z	CELP027-330Z
R024	X	33K	33K
R027	27K	18K	18K
R034	120	270	270
R105	120	150	150
R108	1K	820	820
R109	470	390	390
R110	390	330	330
R131	100	150	150
R133	390	330	330
R134	BW	220	220
R136	X	3.9K	3.9K
C128	220p	120p	120p
C132	X	.1 MY	.1 MY
C133	X	.22 MY	.22 MY
C135	X	39P CH	39P CH
CN003	X	X	X
CN004	X	X	X
R403	1.5 1/2W	1.5 1/2W	1.0 1/2W
R463	18 3W OMR	18 3W OMR	27 3W OMR
L551	CELC901-076J6	CELC901-076J6	CELC901-086J6
R557	27K	27K	15K
C521	QFZ0117-3801L	QFZ0117-3801L	QFZ0117-4001L
Y606	BW	BW	BW
Y607	BW	BW	BW
R619	BW	BW	BW
R620	BW	BW	BW
K901	BW	CE42050-001Z	CE42050-001Z
C912	X	QCZ0122-151A	QCZ0122-151A
C927	X	QCY32HK-681AZ	QCY32HK-681AZ
C951	X	QCZ0131-221A	QCZ0131-221A

DIFFERENCE LIST (Page2-11~2-12)

MODEL NAME	AV-25TS1EK	AV-25TS1EN	
*	SJC-1901A-U2	SJC-1001A-U2	SJC-1003A-U2
D701	MTZJ5.1 (A)-T2	X	X
R731	100K	X	X
C825	X	220p	220p

FRONT CONTROL PWB CIRCUIT DIAGRAM



L01	⚠ 21"	⚠ 25"	⚠ 29"	⚠ 28"
DEG. COIL	CELB018-005J7	CELD019-002J7	CELD020-004J7	CELB020-0

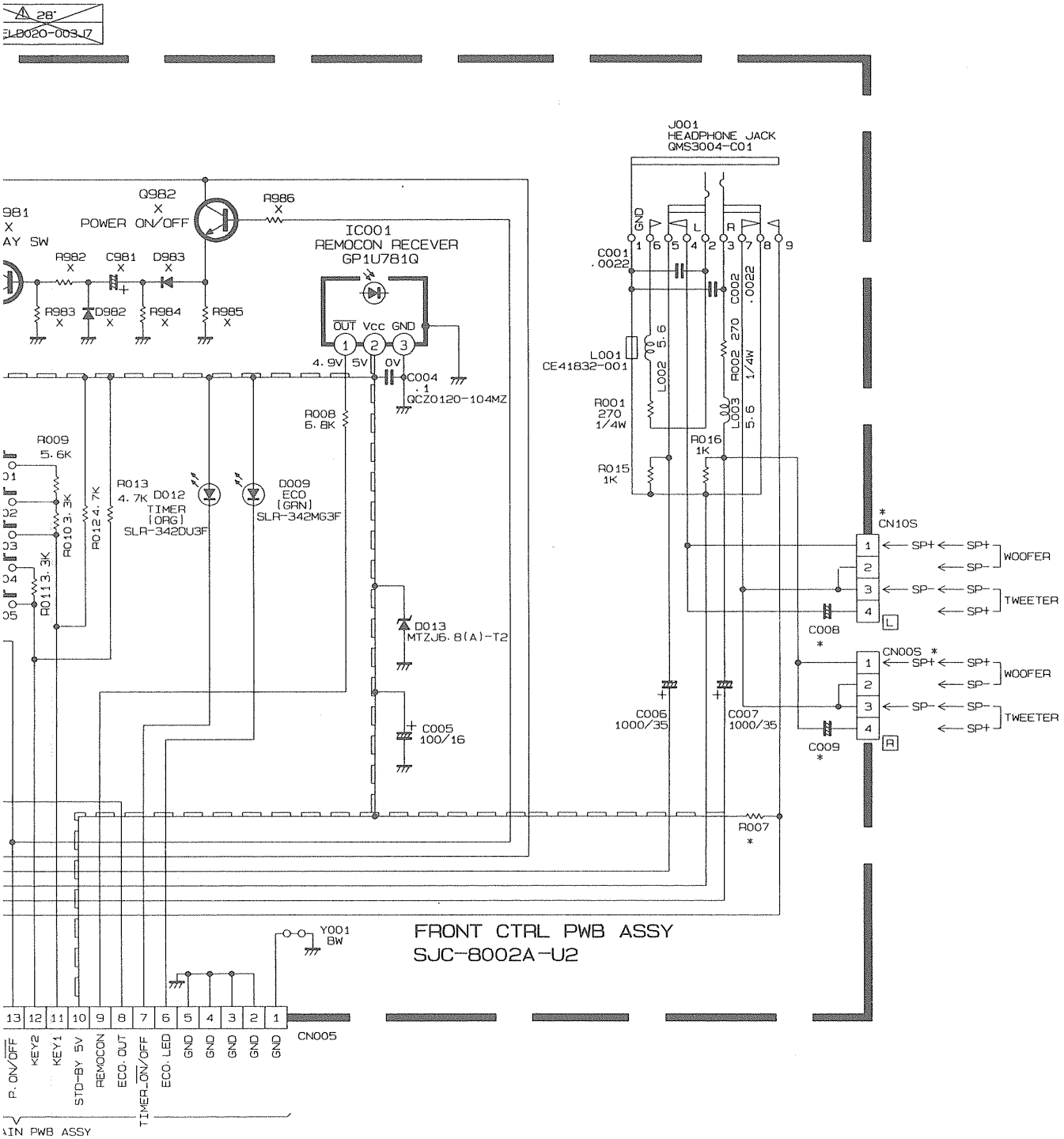
DIFFERENCE LIST

*	SBB-B001A-U2	SBB-B002A-U2	SJC-B001A-U2	SJC-B002A-U2	SJC-B003A-U2
R003	22K	22K	22K	22K	12K
R007	X	10K	X	X	X
R017	X	X	75	75	75
C008	X	3.3/50 BP	X	X BP	X BP
C009	X	3.3/50 BP	X	X BP	X BP
CN00S	CH41169-003Y	CH41169-004Y	CH41169-003Y	CH41169-003Y	CH41169-003Y

*	SBB-B001A-U2	SBB-B002A-U2	SJC-B001A-U2	SJC-B002A-U2	SJC-B003A-U2
CN10S	CH41169-003Y	CH41169-004Y	CH41169-003Y	CH41169-003Y	CH41169-003Y
Y002	IM-BW	X	X	X	X
J002	X	X	CEMN011-001	CEMN011-001	CEMN011-001
J003	X	X	CEMN011-002	CEMN011-002	CEMN011-002
J004	X	X	CEMN011-003	CEMN011-003	CEMN011-003
C010	X	X	.0047	.0047	.0047

*	SBB-B001A-U2	SBB-B002A-U2	SJC-B001A-U2	S
C011	X	X	0047	
L010	X	X	27	
L011	X	X	27	
L012	X	X	CE41832-001	CE -0
CN00F	X	X	CH41169-005Y	CH -0
Y905	IM-BW	IM-BW	X	

Refer to the following PWB pattern. : FRONT CONTROL PWB PATTERN page 2-18 .

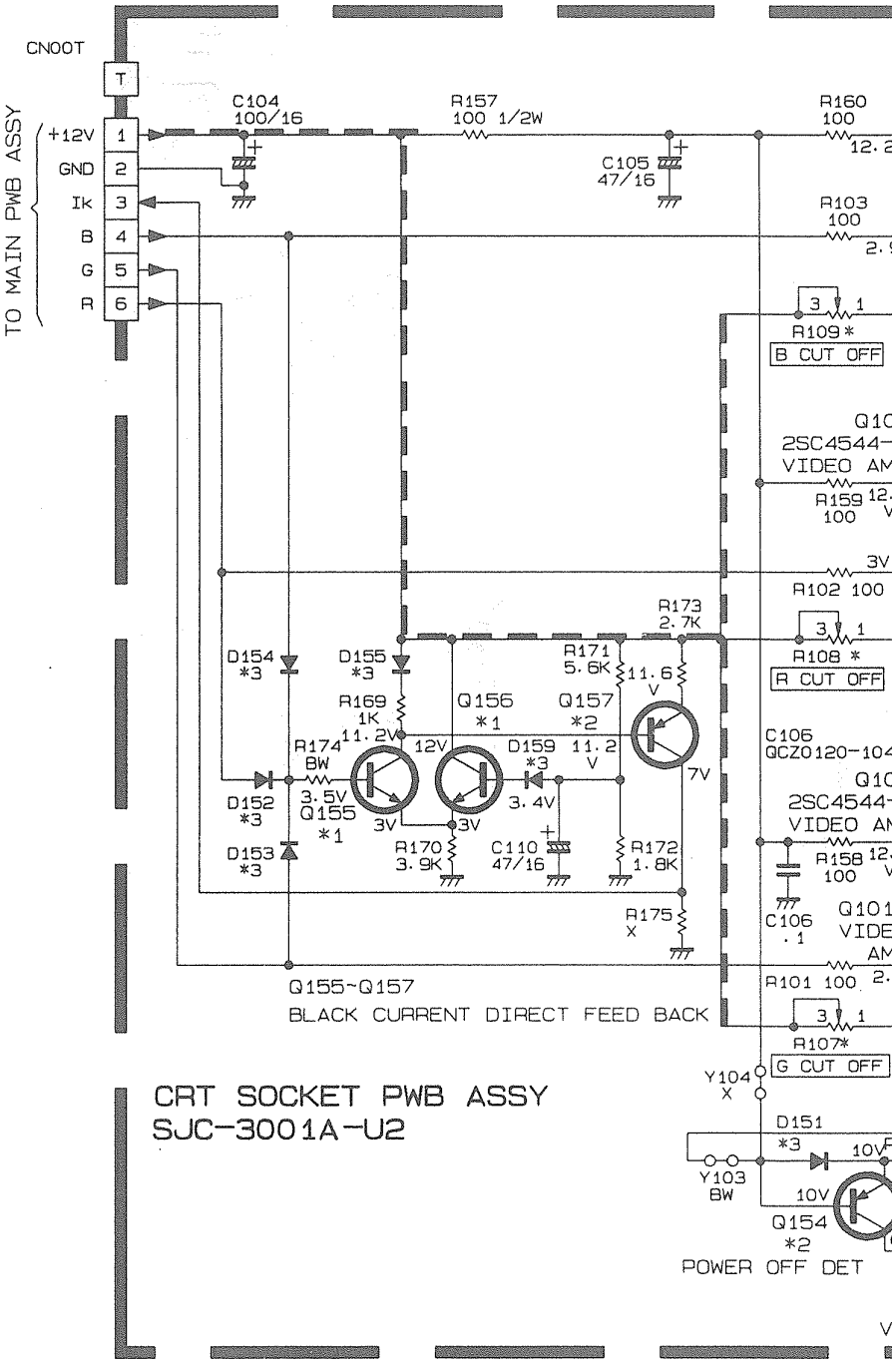


	SJC-B002A-U2	SJC-B003A-U2
	.0047	0047
	27	27
	27	27
	CE41832-001	CE41832-001
	CH41169-005Y	CH41169-005Y
	X	X

*	SBB-B001A-U2	SBB-B002A-U2	SJC-B001A-U2	SJC-B002A-U2	SJC-B003A-U2
Y906	IM-BW	IM-BW	X	X	X
Y907	IM-BW	IM-BW	X	X	X
Y908	IM-BW	IM-BW	X	X	X
LF901	AEFLP002-001	AEFLP002-001	CE42144-001	CE42144-001J2	CE42144-001
C901	QFZ9040-474N	QFZ9040-474N	QFZ9040-474N	QFZ9040-474N	QFZ9036-474N
TH901	CEKP010-001J2	CEKP010-001J2	CEKP010-001J2	CEKP011-001J2	CEKP010-001J2

CRT SOCKET PWB CIRCUIT DIAGRAM

Refer to the following PWB pattern. : CRT SOCKET PWB PATTERN page 2-17 .

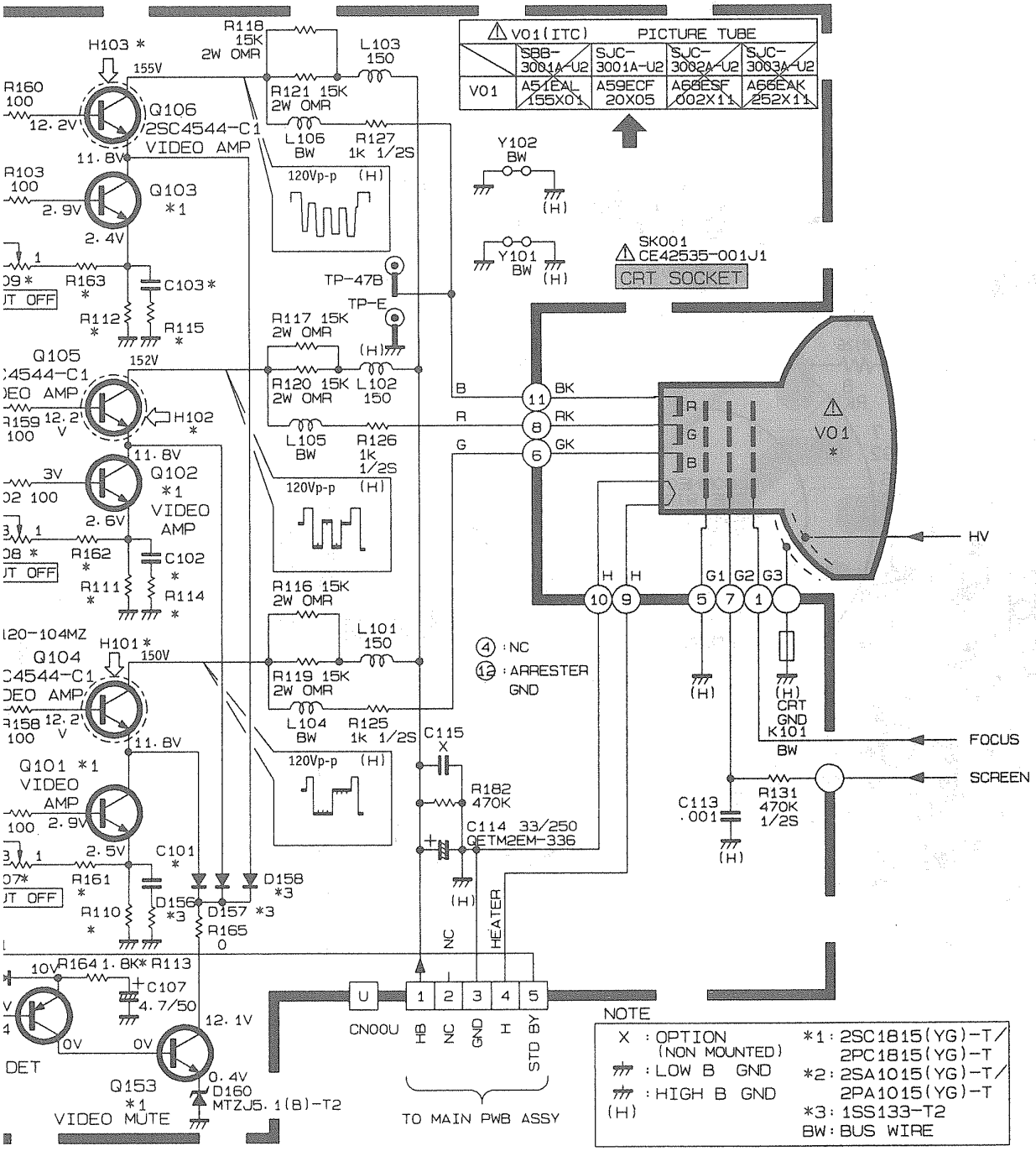


DIFFERENCE LIST

*	SBB-3001A-U2	SJC-3001A-U2	SJC-3002A-U2	SJC-3003A-U2
H101	X	CEHP00N-001Q	CEHP00N-001Q	CEHP00N-001Q
H102	X	CEHP00N-001Q	CEHP00N-001Q	CEHP00N-001Q
H103	X	CEHP00N-001Q	CEHP00N-001Q	CEHP00N-001Q
R110	180	220	180	180
R111	180	220	180	180
R112	180	220	180	180
R113	56	56	56	56

*	SBB-3001A-U2	SJC-3001A-U2	SJC-3002A-U2	SJC-3003A-U2
R114	56	56	56	56
R115	56	56	56	56
C101	220P	220P	220P	220P
C102	220P	220P	220P	220P
C103	270P	270P	270P	270P

*	SBB-3001A
R161	1.8
R162	1.8
R163	1.8
R107	3K
R108	3K
R109	3K



⚠ VO1(ITC)	PICTURE TUBE			
	SBB-3001A-U2	SJC-3001A-U2	SJC-3002A-U2	SJC-3003A-U2
VO1	A51EAL 155X01	A59ECF 20X05	A68ESF 002X11	A66EAK 252X11

NOTE

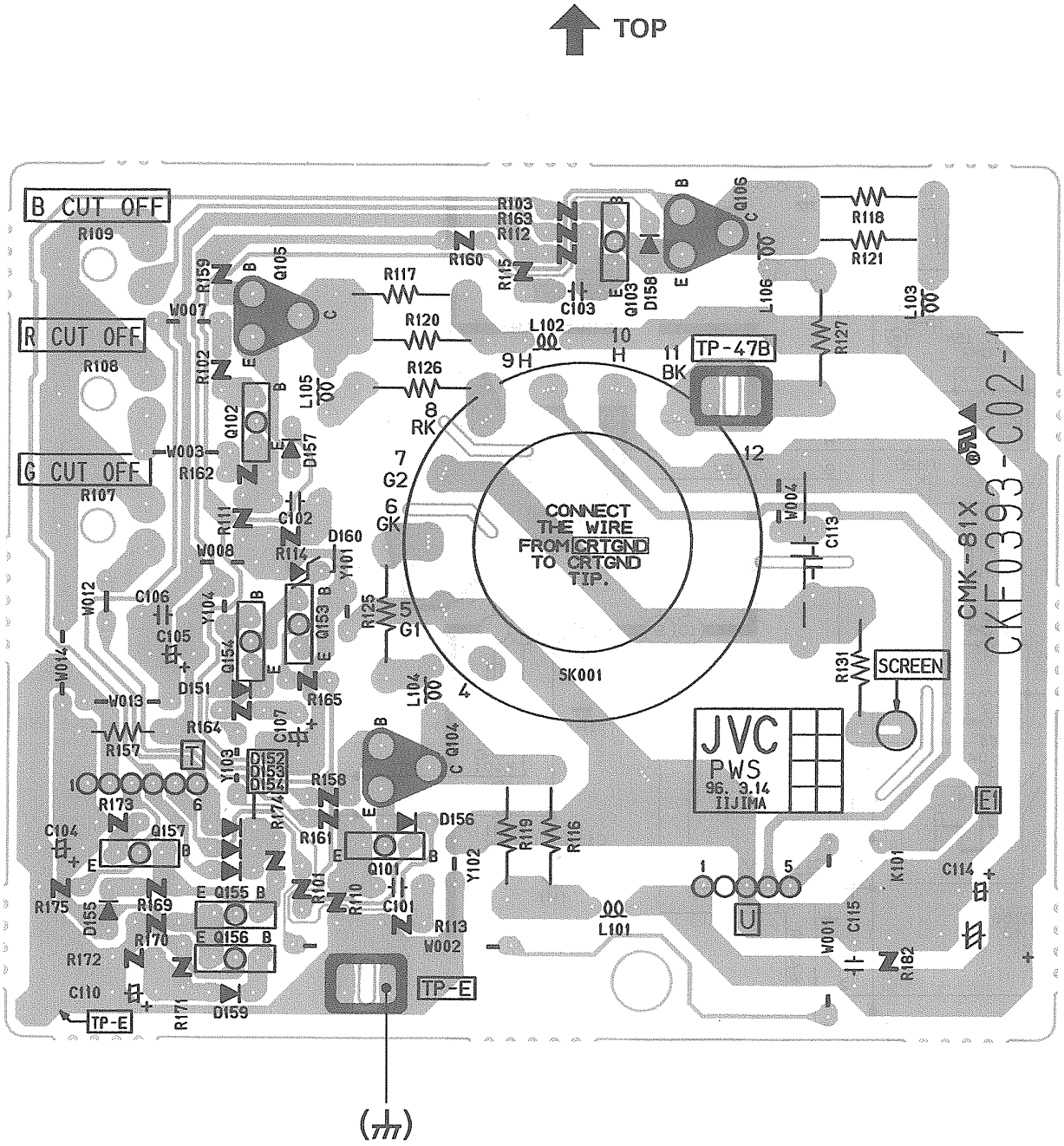
X : OPTION (NON MOUNTED)
: LOW B GND
: HIGH B GND
(H)

*1 : 2SC1815(YG)-T/ 2PC1815(YG)-T
*2 : 2SA1015(YG)-T/ 2PA1015(YG)-T
*3 : 1SS133-T2
BW : BUS WIRE

	SBB-3001A-U2	SJC-3001A-U2	SJC-3002A-U2	SJC-3003A-U2
	1.8K	1.8K	1.5K	1.5K
	1.8K	1.8K	1.5K	1.5K
	1.8K	1.8K	1.5K	1.5K
	8KB	10KB	8KB	5KB
	3KB	10KB	3KB	5KB
	3KB	10KB	3KB	5KB

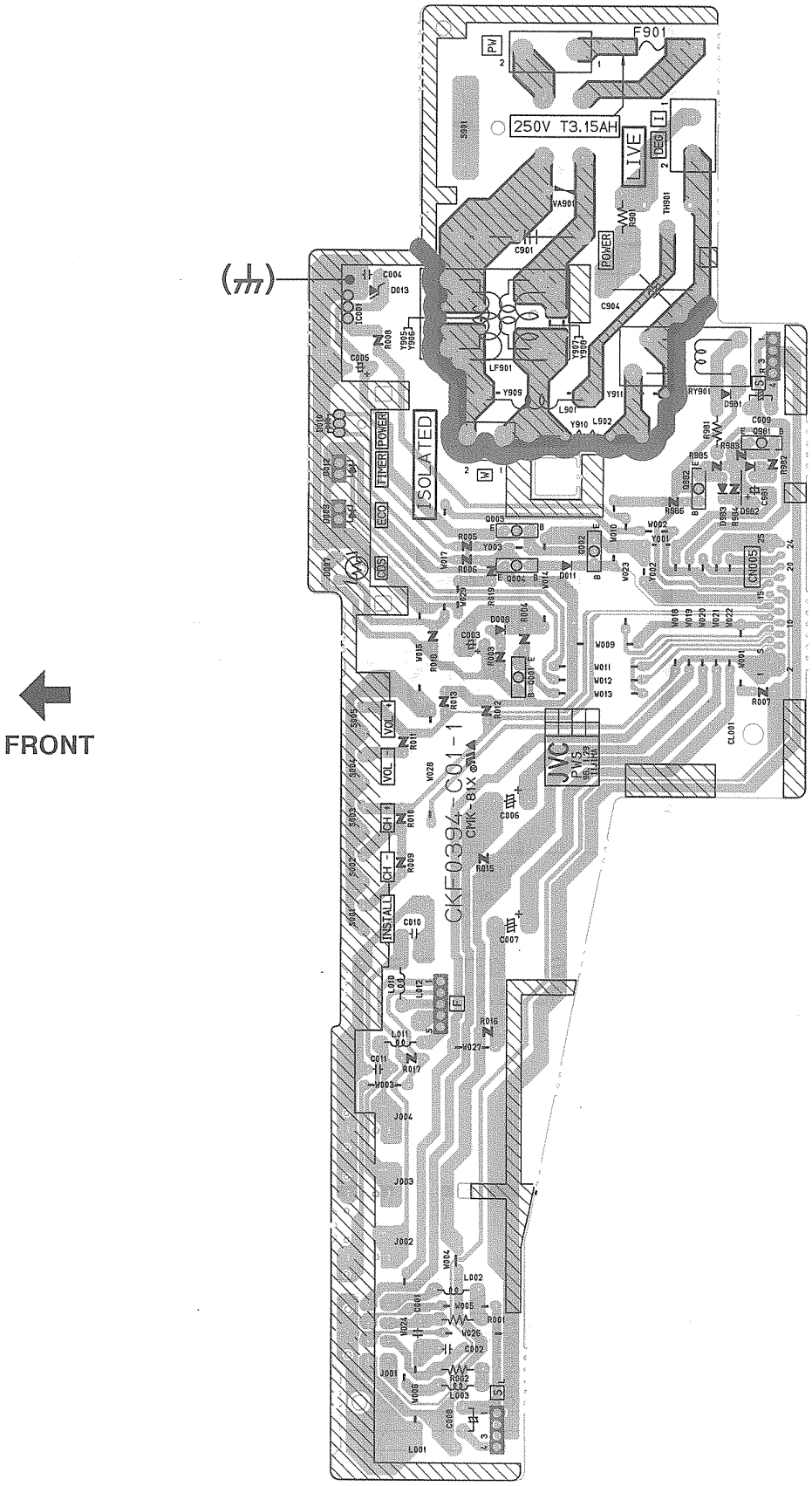
CRT SOCKET PWB PATTERN (SJC-3001A-U2)

(Magnification Rate 140%)



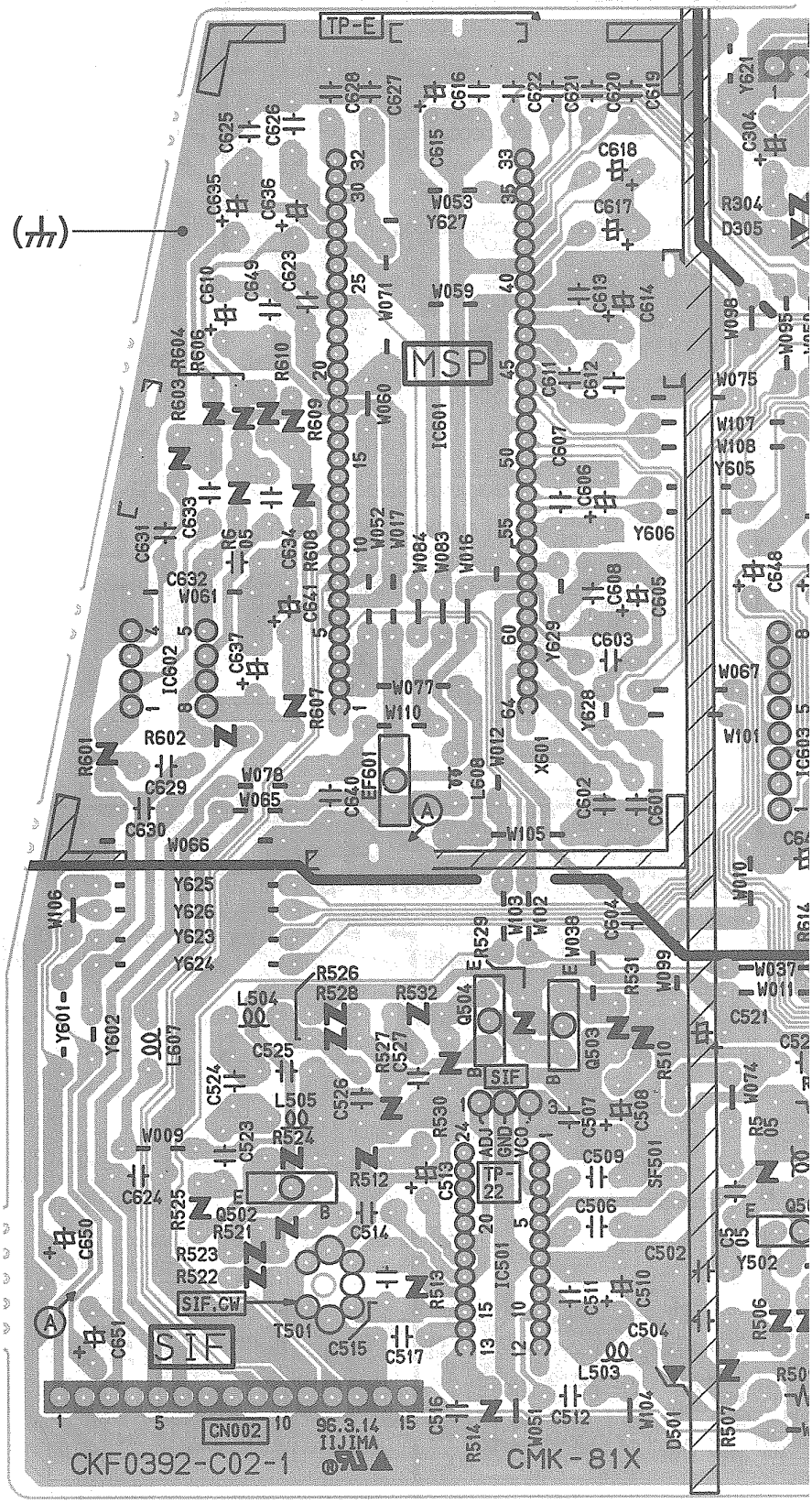
FRONT CONTROL PWB PATTERN (SJC-8002A-U2)

(Magnification Rate 72%)



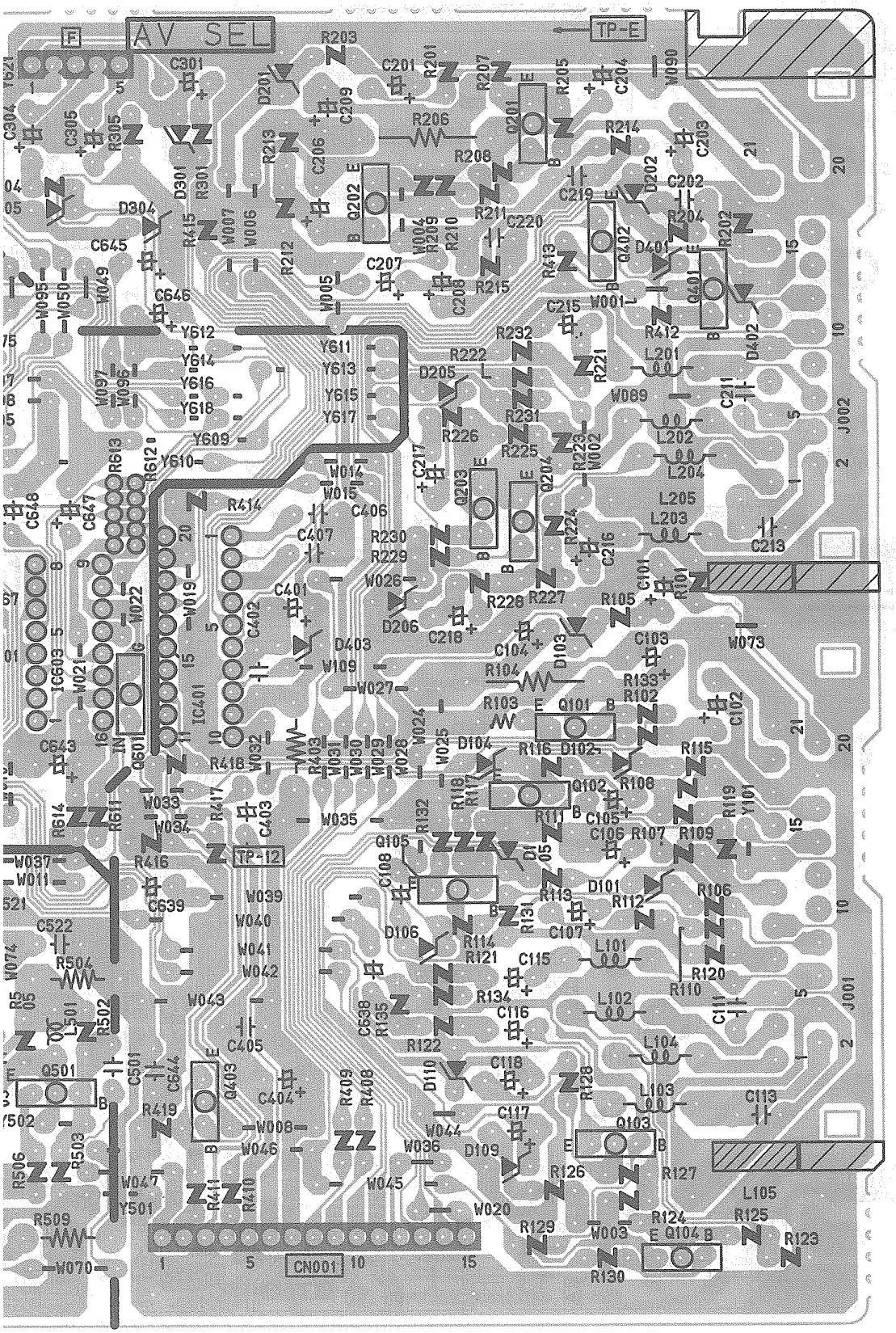
AV SEL. & MSP PWB PATTERN (SJC0S001A-U2)

(Magnification Rate 150%)



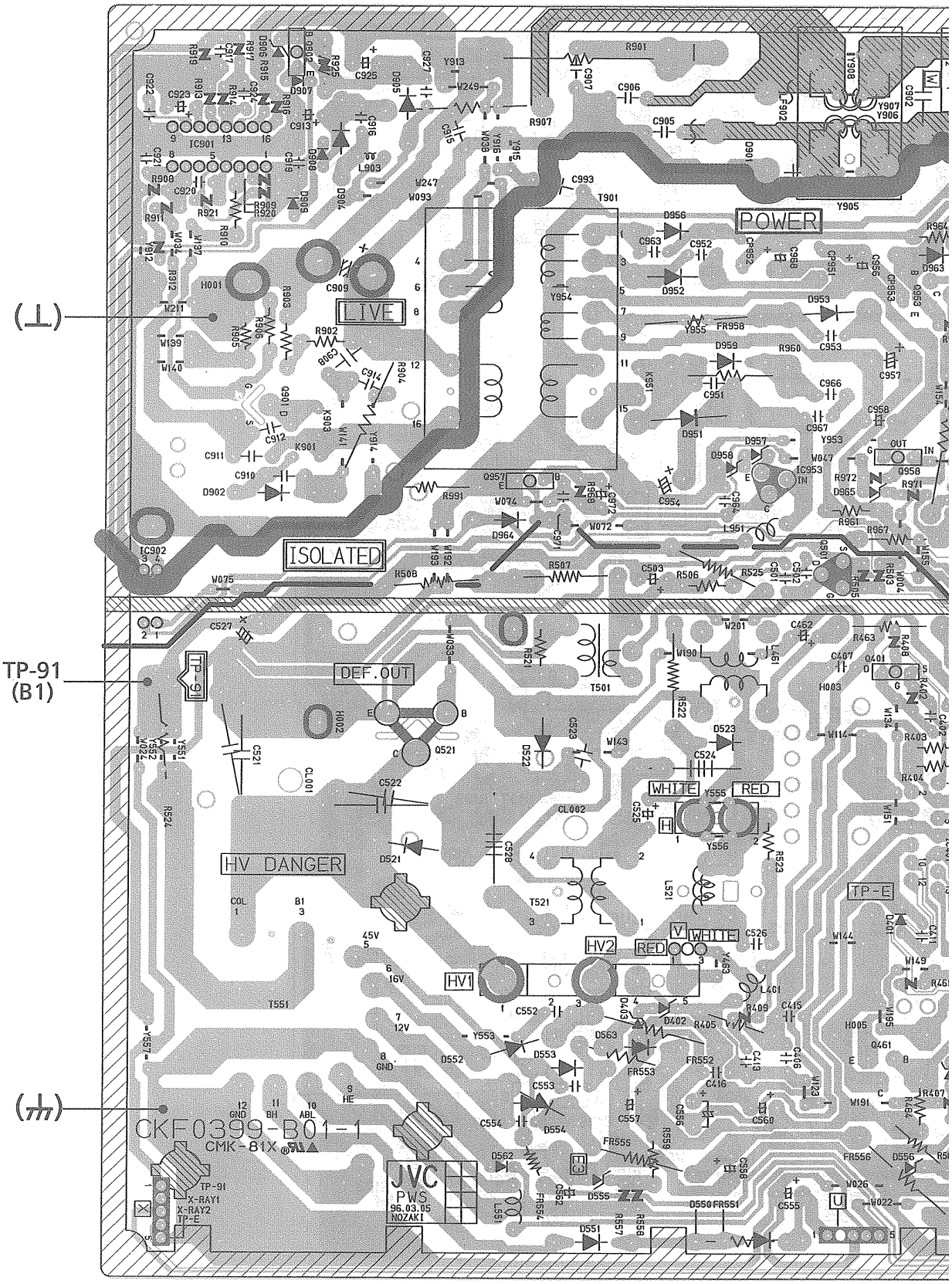
-U2)

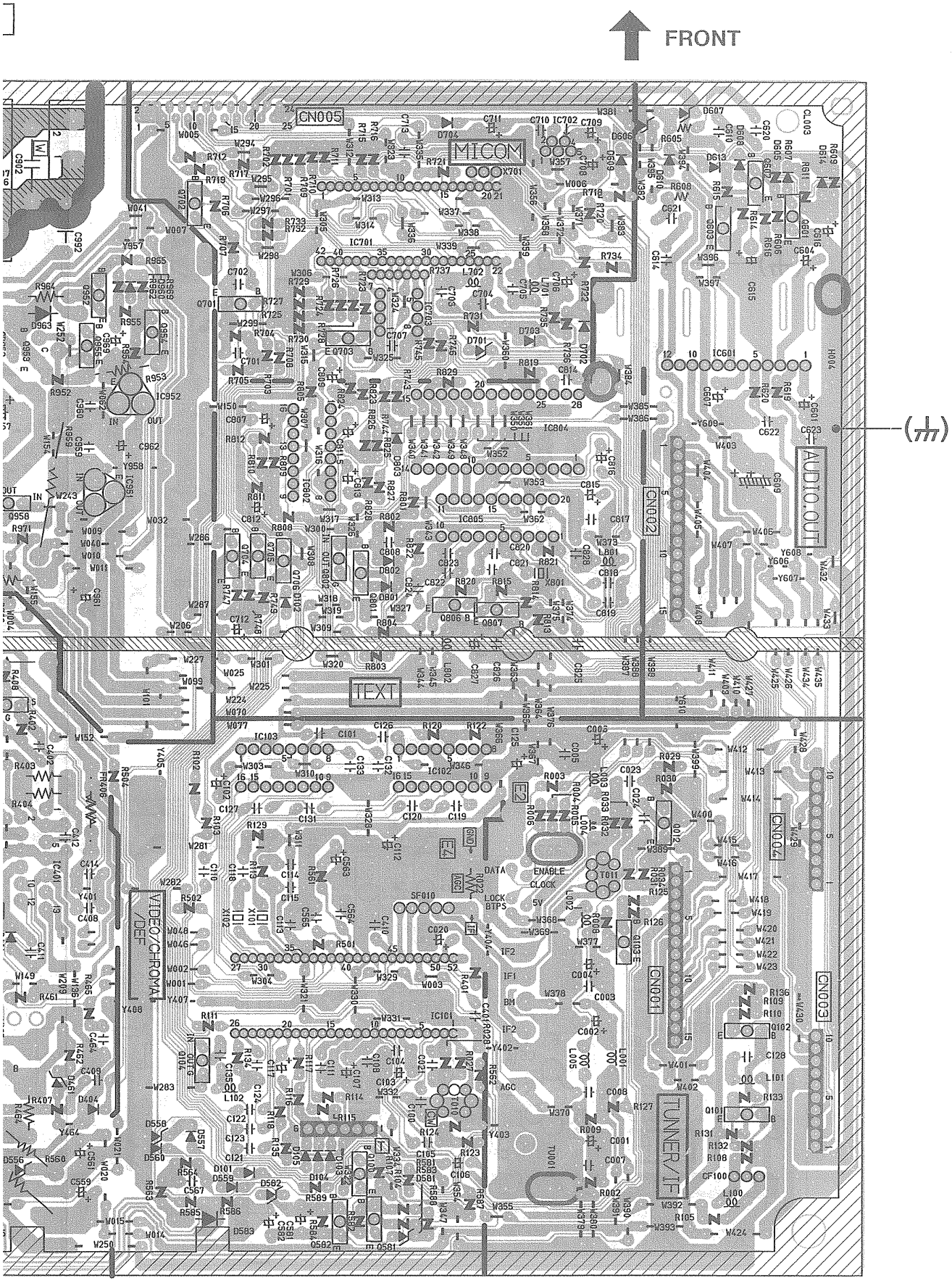
TOP


AV SEL
TP-E
TP-12
CN001
IC401
IC603
Q501
Q601
Y501
Y609
Y610
Y611
Y612
Y613
Y614
Y615
Y616
Y617
Y618

MAIN PWB PATTERN (SJC-1001A-U2)

(Magnification Rate 95%)




FRONT
CN005
MICOM
IC701
IC601
IC804
AUDIO.OUT
CN002
TEXT
VIDEO/CHROMA /DEF
TUNER/IF
CN001
CN004
CN003
(⏚)

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines —— in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .
- As a rule, the resistors and capacitors which are indicated as shown in "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" are not shown in the list of the parts on the board .
  When ordering the service parts, confirm the resistance/rated power, capacitance/rated voltage, and type of the parts, then order by the part No. indicated according to "HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS" .

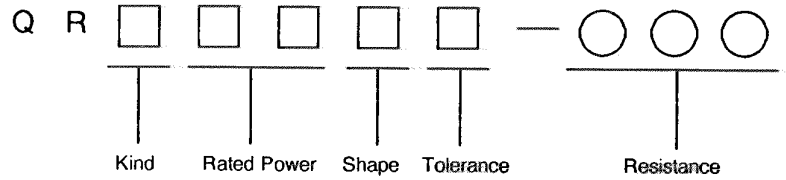
ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% - 10%	+50% - 10%	+80% - 20%	+100% - 0%

HOW TO EXPRESS PARTS NUMBERS OF STANDARD PARTS

■ RESISTOR



Symbol	Part Name
C	COMP.R
D	C R
S	CH MG R

Symbol	Rated Power
0 1	1 w
1 2	1/2 w
1 4	1/4 w
1 6	1/6 w
1 8	1/8 w

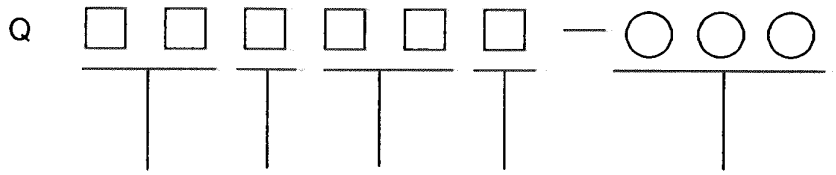
Symbol	Shape
1	Straight lead
8	Chip

Indicate with first two-figure expressed by Ω and following 0.
please note that,in case of resistance less than 10 Ω, a letter "R"will be effective as point.

EX.

2.2 Ω = 2R2
470 Ω = 47×10^1 → 471
150kΩ = 15×10^4 → 154

■ CAPACITOR



Symbol	Part Name
CS	C CAP.
CS	CH C CAP.
ET	E CAP.
FM	M CAP.

6Figure \ 5Figure	0	1	2
A		10V	100V
C		16V	160V
D			200V
E		25V	250V
H		50V	500V
J	6.3V	63V	
V		35V	

Indicate with first two-figure expressed by pF and following 0.
Please note that,in case of capacitance less than 10 pF a letter "R" will be effective as point.

EX

5pF = 5R0
1000pF = 10×10^2 → 102
47μF = 47×10^6 → 476

Symbol	Shape
1	Straight lead
1	Leads in the same direction
8	Chip
A	Leads in the same direction (compact part)

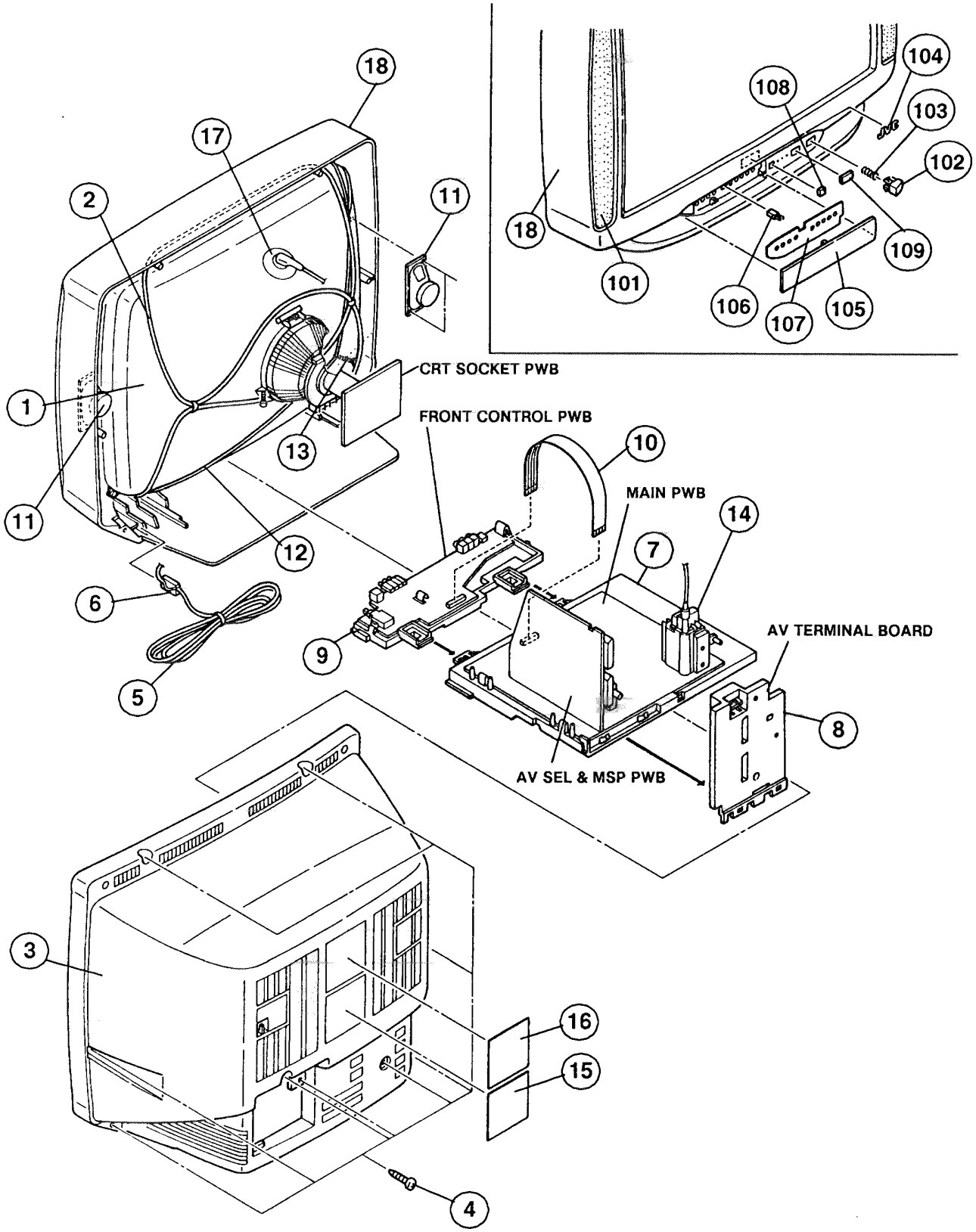
EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	1	A59ECF20X05	PICTURE TUBE(ITC)	(Inc.DY,Wed) V01	*
⚠	2	CELD019-002J7	DEGAUSSING COIL	L01	*
⚠	3	CM12771-B01-E	REAR COVER		*
	4	GBSA4016N	TAPPING SCREW	(×9)	*
⚠	5	AEEMP001-185	POWER CORD		*
	6	CM46618-A01-E	POWER CORD CLAMP		*
	7	CM11752-B02-E	CHASSIS BASE		*
	8	CM12784-002-E	AV TERMINAL BASE		*
	9	CM12640-005-H	CONTROL BASE		*
	10	CHFB125-12BD	FFC WIRE		*
	11	CEBSM12D-05KJ4	SPEAKER	(×2)SP01,SP02	*
	12	CHGB0010-AE-FE	BRAIDED ASSY		*
	13	CHGB0011-0A-FE	SUB BRAIDED ASSY		*
⚠	14	CETH011-00AJ1	H.V.T.	T1551	*
⚠	15	CM22876-006-E	RATING LABEL	(For GBR/ESP)	
⚠	16	CM23085-002-E	RATING LABEL	(For GBR/GER/ITA)	
⚠	17	CE41950-001J1	ANODE CABLE ASSY		*
	18	CM12770-C0C-E	FRONT CABI ASSY	Inc.No.101～109	*
	101	CM22993-001-E	PUNCH METAL	(×2)	
	102	CM36353-A01-E	POWER KNOB		
	103	CM30861-076	SPRING		
	104	CM47783-A01-E	JVC MARK		
	105	CM22994-003-E	DOOR		
	106	CM48001-00A	DOOR LATCH		
	107	CM36354-003-E	CONTROL SHEET		
	108	CM36246-001-H	E.E.WINDOW		
	109	CM36247-A01-H	REMOCON WINDOW		

REMOTE CONTROL UNIT (RM-C761-1E)

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	3104 204 08901	BATTERY COVER		*

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

MAIN PW BOARD ASS'Y [SJC-1001A-U2]

⚠	Symbol No.	Part No.	Part Name	Description			Local
	RESISTOR						
	R1022	QRD129J-474S	C R	470kΩ	1/2W	J	*
	R1402	QRV141F-2701AY	MF R	2.7kΩ	1/4W	F	*
	R1405	QRG019J-221S	OM R	220 Ω	1W	J	*
	R1463	QRG039J-180A	OM R	18 Ω	3W	J	
	R1507	QRG029J-332	OM R	3.3kΩ	2W	J	*
	R1508	QRG029J-392	OM R	3.9kΩ	2W	J	*
	R1522	QRG029J-103	OM R	10kΩ	2W	J	*
	R1524	QRF074K-3R3	UNF R	3.3 Ω	7W	K	*
	R1525	QRG029J-182	OM R	1.8kΩ	2W	J	*
	R1560	QRG019J-272S	OM R	2.7kΩ	1W	J	*
⚠	R1585	QRV141F-2491AY	MF R	2.49kΩ	1/4W	F	*
⚠	R1586	QRV141F-1582AY	MF R	15.8kΩ	1/4W	F	*
	R1737	QRB069J-103	NETW.R	10kΩ	6W	J	*
	R1901	QRF104K-3R9	UNF R	3.9 Ω	10W	K	*
	R1904	QRG039J-473	OM R	47kΩ	3W	J	*
	R1905	QRM059J-R27	MP R	0.27 Ω	5W	J	*
	R1907	QRG039J-563	OM R	56kΩ	3W	J	*
	R1953	QRG019J-681S	OM R	680 Ω	1W	J	*
	R1959	QRG039J-390	OM R	39 Ω	3W	J	*
	R1960	QRF074J-102	UNF R	1kΩ	7W	J	*
	R1967	QRG019J-152S	OM R	1.5kΩ	1W	J	*
⚠	R1991	QRZ0057-825	C R	8.2MΩ	1W	J	*
	CAPACITOR						
	C1001	QETN1HM-226Z	E CAP.	22 μF	50V	M	*
	C1002	QETN1CM-227Z	E CAP.	220 μF	16V	M	*
	C1003	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1004	QETN1HM-106Z	E CAP.	10 μF	50V	M	*
	C1005	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1006	QETN1CM-107Z	E CAP.	100 μF	16V	M	*
	C1008	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1020	QETN1HM-225Z	E CAP.	2.2 μF	50V	M	*
	C1021	QCT25CH-120Z	C CAP.	12 pF	50V	J	*
	C1024	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1100	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J	*
	C1101	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1102	QETN1CM-107Z	E CAP.	100 μF	16V	M	*
	C1103	QETN1HM-105Z	E CAP.	1 μF	50V	M	*
	C1104	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1105	QFLC1HJ-103MZ	M CAP.	0.01 μF	50V	J	*
	C1106	QEN61HM-105Z	BP E CAP.	1 μF	50V	M	*
	C1107	QETN1CM-107Z	E CAP.	100 μF	16V	M	*
	C1108	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1110	QFLC1HJ-473MZ	M CAP.	0.047 μF	50V	J	*
	C1111	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J	*
	C1112	QETN1CM-107Z	E CAP.	100 μF	16V	M	*
	C1113	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1114	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J	*
	C1115	QFLC1HJ-392MZ	M CAP.	3900 pF	50V	J	*
	C1117	QETN1CM-106Z	E CAP.	10 μF	16V	M	*
	C1118	QCT25CH-150Z	C CAP.	15 pF	50V	J	*
	C1119-24	QFV71HJ-104MZ	TF CAP.	0.1 μF	50V	J	*
	C1125	QETN1CM-107Z	E CAP.	100 μF	16V	M	*
	C1126	QCZ0120-104MZ	C CAP.	0.1 μF	25V	Z	*
	C1127	QFLC1HJ-102MZ	M CAP.	1000 pF	50V	J	*
	C1131	QFLC1HJ-102MZ	M CAP.	1000 pF	50V	J	*
	C1132	QFLC1HJ-104MZ	M CAP.	0.1 μF	50V	J	*
	C1133	QFLC1HJ-224MZ	M CAP.	0.22 μF	50V	J	*
	C1135	QCT25CH-390Z	C CAP.	39 pF	50V	J	*
	C1401	QFLC1HJ-104MZ	M CAP.	0.1 μF	50V	J	*
	C1406	QFLC2AJ-563MZ	M CAP.	0.056 μF	100V	J	*
	C1407	QFLC2AK-823MZ	M CAP.	0.082 μF	100V	K	*

⚠	Symbol No.	Part No.	Part Name	Description			Local
	CAPACITOR						
	C1408	QFV71HJ-474MZ	TF CAP.	0.47 µF	50V	J	*
	C1409	QFLC2AJ-393MZ	M CAP.	0.039 µF	100V	J	*
	C1411	QFLC1HJ-823MZ	M CAP.	0.082 µF	50V	J	*
	C1414	QFV71HJ-474MZ	TF CAP.	0.47 µF	50V	J	*
	C1462	QEM61HK-475MZ	E CAP.	4.7 µF	50V	K	*
	C1503	QEHC2CM-105MZ	E CAP.	1 µF	160V	M	*
	C1521	QFZ0117-3801L	MPP CAP.	3800 p F	1.4kVH	±2.5%	*
⚠	C1522	QFZ0117-8001L	MPP CAP.	8000 p F	1.4kVH	±2.5%	*
	C1523	QFP32GJ-273M	PP CAP.	0.027 µF	400V	J	*
⚠	C1524	QFZ0119-514S	MPP CAP.	0.51 µF	200V	±3%	*
	C1525	QETN2EM-475Z	E CAP.	4.7 µF	250V	M	*
	C1527	QETM2CM-227	E CAP.	220 µF	160V	M	*
	C1528	QFZ0119-474S	MPP CAP.	0.47 µF	200V	±3%	*
	C1555	QETN2EM-106Z	E CAP.	10 µF	250V	M	*
	C1556	QEHC1EM-108MZ	E CAP.	1000 µF	25V	M	*
	C1557	QEHC1JM-107MZ	E CAP.	100 µF	63V	M	*
	C1558	QETN1CM-108Z	E CAP.	1000 µF	16V	M	*
	C1559	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
	C1560	QEHC1HM-227MZ	E CAP.	220 µF	50V	M	*
	C1562	QEN61HM-105Z	BP E CAP.	1 µF	50V	M	*
	C1563	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
	C1565	QFLC1HJ-222MZ	M CAP.	2200 p F	50V	J	*
	C1567	QFLC1HJ-682MZ	M CAP.	6800 p F	50V	J	*
	C1581	QETN1AM-227Z	E CAP.	220 µF	10V	M	*
	C1582	QETN2AM-106Z	E CAP.	10 µF	100V	M	*
	C1601	QETN1HM-107Z	E CAP.	100 µF	50V	M	*
	C1604	QETN1HM-107Z	E CAP.	100 µF	50V	M	*
	C1607	QEHC1HM-107MZ	E CAP.	100 µF	50V	M	*
	C1610	QFV71HJ-224MZ	TF CAP.	0.22 µF	50V	J	*
	C1614	QFV71HJ-224MZ	TF CAP.	0.22 µF	50V	J	*
	C1615	QETN1EM-477Z	E CAP.	470 µF	25V	M	*
	C1616	QETN1EM-476Z	E CAP.	47 µF	25V	M	*
	C1620-21	QFV71HJ-224MZ	TF CAP.	0.22 µF	50V	J	*
	C1703	QCT25CH-680Z	C CAP.	68 p F	50V	J	*
	C1704	QCT25CH-560Z	C CAP.	56 p F	50V	J	*
	C1705	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C1706	QETN1AM-107Z	E CAP.	100 µF	10V	M	*
	C1707	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C1708	QETN1AM-227Z	E CAP.	220 µF	10V	M	*
	C1709	QETN1EM-106Z	E CAP.	10 µF	25V	M	*
	C1710	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C1711	QETN1EM-108Z	E CAP.	1000 µF	25V	M	*
	C1712	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
	C1807	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
	C1809	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C1811	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C1812	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
	C1813	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C1815	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
	C1816	QETN1CM-226Z	E CAP.	22 µF	16V	M	*
	C1820-21	QCT25CH-150Z	C CAP.	15 p F	50V	J	*
	C1822	QFV71HJ-104MZ	TF CAP.	0.1 µF	50V	J	*
	C1826	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C1827	QETN0JM-227Z	E CAP.	220 µF	6.3V	M	*
	C1828	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
⚠	C1905	QCZ9034-472A	C CAP.	4700 p F	AC400V	P	*
⚠	C1906	QCZ9034-472A	C CAP.	4700 p F	AC400V	P	*
⚠	C1907	QCZ9034-472A	C CAP.	4700 p F	AC400V	P	*
	C1909	QEZ0167-227M	E CAP.	220 µF	385V	M	*
	C1910	QCZ0122-391A	C CAP.	390 p F	2000V	K	*
	C1911	QCZ0122-221A	C CAP.	220 p F	2000V	K	*
	C1912	QCZ0122-151A	C CAP.	150 p F	2000V	K	*
	C1913	QETN1EM-227Z	E CAP.	220 µF	25V	M	*
	C1919	QFLC1HJ-104MZ	M CAP.	0.1 µF	50V	J	*

⚠	Symbol No.	Part No.	Part Name	Description			Local
	C A P A C I T O R						
	C1920	QFLC1HJ-102MZ	M CAP.	1000 p F	50V	J	*
	C1923	QETN1HM-105Z	E CAP.	1 µ F	50V	M	*
	C1924	QFLC1HJ-102MZ	M CAP.	1000 p F	50V	J	*
	C1925	QETN1JM-227Z	E CAP.	220 µ F	63V	M	*
	C1951	QCZ0131-221A	C CAP.	220 p F	2000V	K	*
	C1954	QEHB2CM-227M	E CAP.	220 µ F	160V	M	*
	C1956	QETN1EM-108Z	E CAP.	1000 µ F	25V	M	*
	C1957	QEHB1VM-228M	E CAP.	2200 µ F	35V	M	*
	C1958	QEN61CM-106Z	BP E CAP.	10 µ F	16V	M	*
	C1959-60	QCZ0120-104MZ	C CAP.	0.1 µ F	25V	Z	*
	C1961	QETN1AM-228Z	E CAP.	2200 µ F	10V	M	*
	C1962	QETN1AM-227Z	E CAP.	220 µ F	10V	M	*
	C1966-67	QCZ0132-222AZ	C CAP.	2200 p F	500V	K	*
	C1968	QETN1HM-227Z	E CAP.	220 µ F	50V	M	*
	C1969	QETN1CM-226Z	E CAP.	22 µ F	16V	M	*
	C1972	QETN1HM-474Z	E CAP.	0.47 µ F	50V	M	*
⚠	C1992	QCZ9041-471A	C CAP.	470 p F	AC400V	K	*
⚠	C1993	QCZ9041-332A	C CAP.	3300 p F	AC400V	K	*
	T R A N S F O R M E R						
	T1010	CELT001-301J1	C.WAVE TRANSF.				*
	T1011	CE42675-001	IF TRANSF.				
	T1501	CE42034-002	H.DRIVE TRANSF.				*
	T1521	CE42549-001J1	BRIGE COIL				*
⚠	T1551	CETH011-00AJ1	H.V.T.				*
⚠	T1901	CETS058-001J4	SW TRANSF.				*
	C O I L						
	L1001	CELP026-270Z	PEAKING COIL	2.7 µ H			*
	L1002-03	CELP026-8R2Z	PEAKING COIL	8.2 µ H			*
	L1004	CELP041-R47	PEAKING COIL	0.47 µ H			*
	L1100	CELP026-6R8Z	PEAKING COIL	6.8 µ H			*
	L1101	CELP026-8R2Z	PEAKING COIL	8.2 µ H			*
	L1102	CELP027-330Z	PEAKING COIL	33 µ H			*
	L1401	CELC901-024J6	HEATER CHOKE				*
	L1461	CE42567-001J1	INJECTION COIL				*
	L1521	CELL012-001J2	LINEARITY COIL				*
	L1551	CELC901-076J6	HEATER CHOKE				*
	L1701	CELP026-4R7Z	PEAKING COIL	4.7 µ H			*
	L1702	CELP026-8R2Z	PEAKING COIL	8.2 µ H			*
	L1801	CELP026-3R3Z	PEAKING COIL	3.3 µ H			*
	L1802	CELP026-4R7Z	PEAKING COIL	4.7 µ H			*
	L1903	CELC005-2R5J7	CHOKE COIL				*
	L1951	CELC901-046J6	HEATER CHOKE				*
	D I O D E						
	D1101	1SS133-T2	SI.DIODE				*
	D1103-05	1SS133-T2	SI.DIODE				*
	D1401	1SS120-T2	SI.DIODE				*
	D1402	MTZJ33(B)-T2	ZENER DIODE				*
	D1403	MTZJ24(B)-T2	ZENER DIODE				*
	D1404	1SS133-T2	SI.DIODE				*
	D1461	MTZJ33(B)-T2	ZENER DIODE				*
	D1521	BY228-20	SI.DIODE				*
	D1522	BYW95B-20	SI.DIODE				*
	D1523	BYD33G-T3	SI.DIODE				*
	D1550-51	BYD33G-T3	SI.DIODE				*
	D1552	BYW95B-20	SI.DIODE				*
	D1553	BYD33D-T3	SI.DIODE				*
	D1554	BYD33G-T3	SI.DIODE				*
	D1555	MTZJ15(A)-T2	ZENER DIODE				*
	D1556	MTZJ33(B)-T2	ZENER DIODE				*
	D1557	1SS133-T2	SI.DIODE				*
	D1558	MTZJ6.8(A)-T2	ZENER DIODE				*
	D1559	1SS133-T2	SI.DIODE				*
	D1563	BYD33D-T3	SI.DIODE				*
	D1581	MTZJ4.3(A)-T2	ZENER DIODE				*
	D1582	MA4068(N)C1-T2	ZENER DIODE				*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	D I O D E				
	D1583	BYD33D-T3	SI.DIODE		*
	D1605	1SS133-T2	SI.DIODE		*
	D1606-07	MTZJ33(A)-T2	ZENER DIODE		*
	D1608-10	1SS133-T2	SI.DIODE		*
	D1613-14	1SS133-T2	SI.DIODE		*
	D1702-03	MA700-T2	SI.DIODE		*
	D1704	1SS146-T2	SI.DIODE		*
	D1801-02	1SS133-T2	SI.DIODE		*
⚠	D1901	D3SBA60	DIODE BRIDGE		*
	D1902	BYD33M-T3	SI.DIODE		*
	D1904-05	BYD33D-T3	SI.DIODE		*
	D1906	MTZJ13(B)-T2	ZENER DIODE		*
	D1907-09	1SS146-T2	SI.DIODE		*
	D1951	RU4B-C1	SI.DIODE		*
	D1952-53	BYW95B-20	SI.DIODE		*
	D1956	BYD33D-T3	SI.DIODE		*
	D1957	MTZJ6.8(C)-T2	ZENER DIODE		*
	D1958	MTZJ7.5(B)-T2	ZENER DIODE		*
	D1959	BYD33M-T3	SI.DIODE		*
	D1963-64	BYD33D-T3	SI.DIODE		*
	D1965	MTZJ9.1(C)-T2	ZENER DIODE		*
	T R A N S I S T O R				
	Q1012	2SC5083(L-P)-T	SI.TRANSISTOR		*
	Q1100	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q1101	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q1102-03	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q1104	DTC124ES-T	DIGI.TRANSISTOR		*
	Q1401	2SK301(Q)-T	F.E.T.		*
	Q1461	2SB941A(QP)	SI.TRANSISTOR		*
	Q1501	BSN274	F.E.T.		*
⚠	Q1521	BU2508AX	POWER TRANSISTOR	H.OUT	*
	Q1581	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q1582	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q1601-02	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q1603	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q1701-03	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q1704-06	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q1801	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q1802	DTC124ES-T	DIGI.TRANSISTOR		*
	Q1806	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q1901	MTA4N60E	F.E.T.		*
	Q1902	2SC2240(GB)-T	SI.TRANSISTOR		
	Q1952	2SA1013(O)-T	SI.TRANSISTOR		
	Q1953	2SB941A(QP)	SI.TRANSISTOR		*
	Q1954	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q1955	2PA1015(YG)-T	SI.TRANSISTOR		*
	Q1957	2SC2240(GB)-T	SI.TRANSISTOR		
	Q1958	DTC124ES-T	DIGI.TRANSISTOR		*
	I C				
	IC1101	TDA8366	I.C.(MONO-ANA)		*
	IC1102	TDA4665	I.C.(MONO-ANA)		*
	IC1103	TDA8395	I.C.(MONO-ANA)		*
	IC1401	TDA8350Q	I.C.(MONO-ANA)		*
	IC1601	AN5275	I.C.(MONO-ANA)		*
	IC1701	M37221M6-063SP	I.C.(MICRO-COMP)		
	IC1702	L78LR05E-MA	I.C.(MONO-ANA)		*
	IC1703	AT24C08-25TS1EN	I.C.(EP-ROM)	(SERVICE)	*
	IC1802	TC4053BP	I.C.(DIGI-MOS)		*
	IC1804	CF70200	I C		*
	IC1805	CF72306	I C		*
	IC1901	MC44603P	I.C.(MONO-ANA)		*
⚠	IC1902	TLP621(D4)-LF2	I.C.(PH.COUPLER)		*
	IC1951	AN7808F	I.C.(MONO-ANA)		
	IC1952	AN7805F	I.C.(MONO-ANA)		
	IC1953	SE135N	I.C.(HYBRID)		*

⚠	Symbol No.	Part No.	Part Name	Description			Local
	OTHERS						
	CF1100	TPS5.5MW	CERAMIC FILTER				*
	CN1001-02	CH42151-015RT	JL SOCKET				*
⚠	CP1951	ICP-N50-Y	I.C.PROTECT				
⚠	CP1952	ICP-N50-Y	I.C.PROTECT				
⚠	FR1406	QRD121J-1R5SY	C R	1.5 Ω	1/2W	J	*
⚠	FR1552	QRH027K-R82M	F R	0.82 Ω	2W	K	*
⚠	FR1553	QRH127J-5R6M	F R	5.6 Ω	1/2W	J	*
⚠	FR1554	QRZ0054-4R7M	F R	4.7 Ω	1/4W	J	*
⚠	FR1555	QRH017J-2R2M	F R	2.2 Ω	1W	J	*
⚠	FR1556	QRH027J-3R3M	F R	3.3 Ω	2W	J	*
⚠	FR1958	QRH027J-1R8M	F R	1.8 Ω	2W	J	*
	K1901	CE42050-001Z	CORE				*
	K1903	CE42050-001Z	CORE				*
	SF1010	CE42573-701	SAW FILTER				
	TU1001	CEEK472-B01	TUNER				*
	X1101	CE41115-001J4	CRYSTAL				*
	X1102	CE41651-001Z	CRYSTAL				*
	X1701	CST8.00MT	CER.RESONATOR				*
	X1801	CE41257-001	CRYSTAL				*

CRT SOCKET PW BOARD ASS'Y [SJC-3001A-U2]

⚠	Symbol No.	Part No.	Part Name	Description			Local
	VARIABLE RESISTOR						
	R3107	QVPE805-103H	V R(G CUT OFF)	10kΩ	B		*
	R3108	QVPE805-103H	V R(R CUT OFF)	10kΩ	B		*
	R3109	QVPE805-103H	V R(B CUT OFF)	10kΩ	B		*
	RESISTOR						
	R3116-21	QRG029J-153A	OM R	15kΩ	2W	J	*
	CAPACITOR						
	C3104	QETN1CM-107Z	E CAP.	100μF	16V	M	*
	C3105	QETN1CM-476Z	E CAP.	47μF	16V	M	*
	C3106	QCZ0120-104MZ	C CAP.	0.1μF	25V	Z	*
	C3107	QETN1HM-475Z	E CAP.	4.7μF	50V	M	*
	C3110	QETN1CM-476Z	E CAP.	47μF	16V	M	*
	C3113	QCZ0121-102A	C CAP.	1000pF	3000V	Z	*
	C3114	QETM2EM-336	E CAP.	33μF	250V	M	*
	COIL						
	L3101-03	CELP026-151Z	PEAKING COIL	150μH			*
	DIODE						
	D3151-59	1SS133-T2	SI.DIODE				*
	D3160	MTZJ6.2(B)-T2	ZENER DIODE				*
	TRANSISTOR						
	Q3101-03	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q3104-06	2SC4544-C1	SI.TRANSISTOR				*
	Q3153	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q3154	2PA1015(YG)-T	SI.TRANSISTOR				*
	Q3155-56	2PC1815(YG)-T	SI.TRANSISTOR				*
	Q3157	2PA1015(YG)-T	SI.TRANSISTOR				*
	OTHERS						
⚠	SK3001	CE42535-001J1	C.R.T.SOCKET				*

FRONT CONTROL PW BOARD ASS'Y [SJC-8002A-U2]

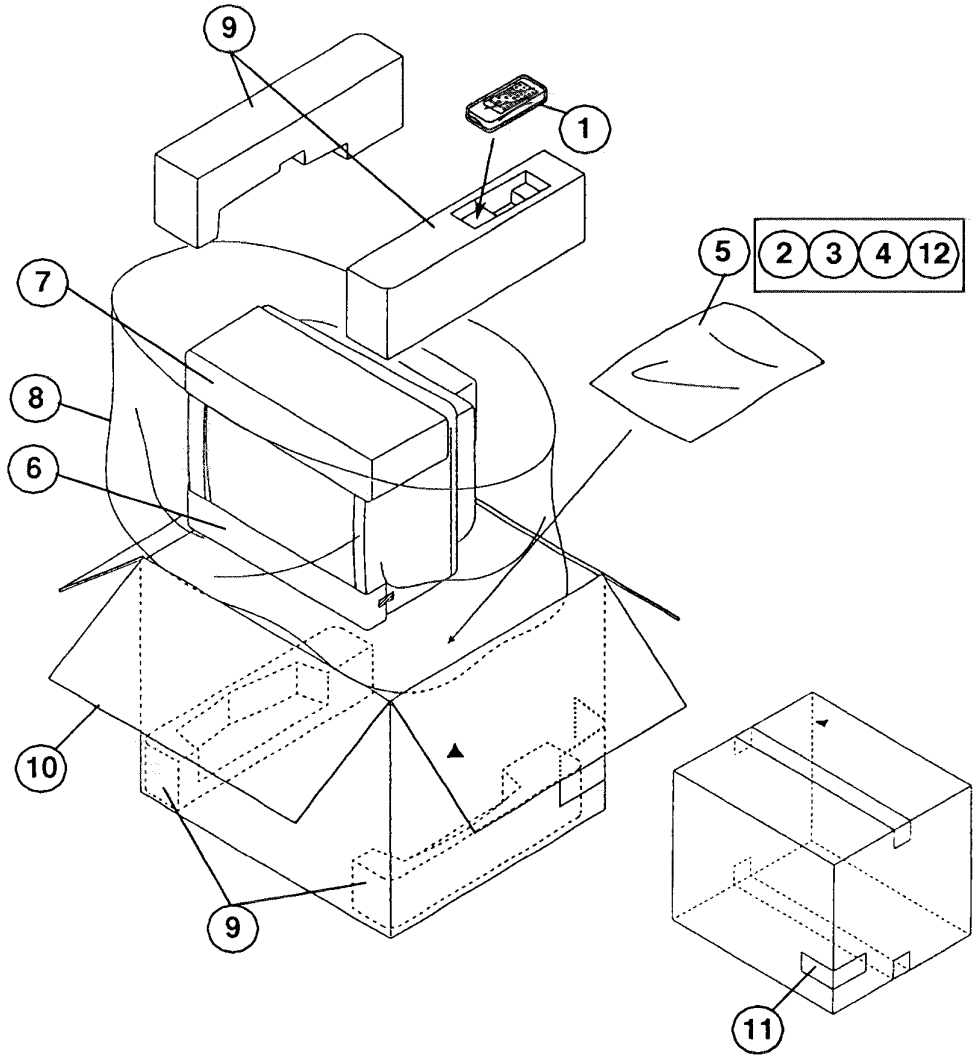
⚠	Symbol No.	Part No.	Part Name	Description	Local
	C A P A C I T O R				
	C8003	QETN1CM-106Z	E CAP.	10 μ F 16V M	
	C8004	QCZ0120-104MZ	C CAP.	0.1 μ F 25V Z	*
	C8005	QETN1CM-107Z	E CAP.	100 μ F 16V M	*
	C8006-07	QEU51VM-108M	E CAP.	1000 μ F 35V M	*
⚠	C8901	QFZ9040-474N	MF CAP.	0.47 μ FAC275V M	*
⚠	C8904	QFZ9040-473N	MM CAP.	0.047 μ AC275V M	*
	C O I L				
	L8001	CE41832-001	LEAD CORE		*
	L8002-03	CELP017-5R6Y	PEAKING COIL	5.6 μ H	*
	L8010-11	CELP017-270Y	PEAKING COIL	27 μ H	*
	L8012	CE41832-001	LEAD CORE		*
	L8901-02	CELC055-100	CHOKE COIL		*
	D I O D E				
	D8007	CE40538-00A	PHOTO CONDUCTOR		*
	D8008	1SS133-T2	SI.DIODE		*
	D8009	SLR-342MG3F	L.E.D.(GRN)		*
	D8010	SPR-39MVWF	L.E.D.		*
	D8012	SLR-342DU3F	L.E.D.(ORG)		*
	D8013	MTZJ6.8(A)-T2	ZENER DIODE		*
	T R A N S I S T O R				
	Q8001	2PC1815(YG)-T	SI.TRANSISTOR		*
	Q8003-04	DTA144ES-T	DIGI.TRANSISTOR		*
	I C				
	IC8001	GP1U781Q	IFR DETECT UNIT		*
	O T H E R S				
		CM36156-A01-E	LED HOLDER	3.15A	*
⚠	F8901	QMF51D2-3R15J1	FUSE		*
	J8001	QMS3004-C01	HEADPHONE JACK		*
	J8002	CEMN011-001	JACK		*
	J8003	CEMN011-002	JACK		*
	J8004	CEMN011-003	JACK		*
⚠	LF8901	CE42144-001J2	LINE FILTER		*
	S8001	QSP1A11-C18Z	PUSH SWITCH	INSTALL	*
	S8002	QSP1A11-C18Z	PUSH SWITCH	CH ▽(DOWN)	*
	S8003	QSP1A11-C18Z	PUSH SWITCH	CH △(UP)	*
	S8004	QSP1A11-C18Z	PUSH SWITCH	VOL(-)	*
	S8005	QSP1A11-C18Z	PUSH SWITCH	VOL(+)	*
⚠	S8901	QSP4K21-C01	PUSH SWITCH	MAIN POWER	*
⚠	TH8901	CEKP011-001J2	TH POSISTOR		*

AV SEL & MSP PW BOARD ASS'Y [SJC0S001A-U2]

⚠	Symbol No.	Part No.	Part Name	Description			Local
	RESISTOR						
	R0104	QRG019J-101S	OM R	100 Ω	1W	J	*
	R0206	QRG019J-101S	OM R	100 Ω	1W	J	*
⚠	R0403	QRZ0054-470M	F R	47 Ω	1/4W	J	*
⚠	R0504	QRZ0054-330M	F R	33 Ω	1/4W	J	*
⚠	R0509	QRZ0054-470M	F R	47 Ω	1/4W	J	*
	CAPACITOR						
	C0101	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C0102	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
	C0103	QETN1CM-227Z	E CAP.	220 µF	16V	M	*
	C0104	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
	C0105-07	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C0108	QEN61CM-106Z	BP E CAP.	10 µF	16V	M	*
	C0115-16	QEN61HM-105Z	BP E CAP.	1 µF	50V	M	*
	C0117-18	QETN1HM-335Z	E CAP.	3.3 µF	50V	M	*
	C0201	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C0202	QFLC1HK-103MZ	M CAP.	0.01 µF	50V	K	*
	C0203-04	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
	C0206	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
	C0207-08	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
	C0215-16	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
	C0217-18	QETN1HM-335Z	E CAP.	3.3 µF	50V	M	*
	C0301	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
	C0304-05	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
	C0401	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
	C0402	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C0403	QEN61CM-106Z	BP E CAP.	10 µF	16V	M	*
	C0404	QETN1CM-477Z	E CAP.	470 µF	16V	M	*
	C0405	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C0502	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C0508	QETN1HM-474Z	E CAP.	0.47 µF	50V	M	*
	C0510	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
	C0513	QETN1HM-474Z	E CAP.	0.47 µF	50V	M	*
	C0515	QCT25CH-270Z	C CAP.	27 pF	50V	J	*
	C0521	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
	C0601-02	QCT25CH-2R0Z	C CAP.	2 Ω	50V	J	*
	C0605-06	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C0607-08	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C0610	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C0613	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C0614-15	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C0616	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C0617-18	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	C0624	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C0635-36	QETN1HM-105Z	E CAP.	1 µF	50V	M	*
	C0637	QETN1CM-107Z	E CAP.	100 µF	16V	M	*
	C0641	QETN1CM-476Z	E CAP.	47 µF	16V	M	*
	C0649	QCZ0120-104MZ	C CAP.	0.1 µF	25V	Z	*
	C0650-51	QETN1CM-106Z	E CAP.	10 µF	16V	M	*
	TRANSFORMER						
	T0501	CELT001-306	C.WAVE TRANSF.				*
	COIL						
	L0101-04	CELP017-5R6Y	PEAKING COIL	5.6 µH			*
	L0105	CE41832-001	LEAD CORE				*
	L0201-04	CELP017-5R6Y	PEAKING COIL	5.6 µH			*
	L0205	CE41832-001	LEAD CORE				*
	L0501	CELP026-1R5Z	PEAKING COIL	1.5 µH			*
	L0503	CELP026-2R2Z	PEAKING COIL	2.2 µH			*
	L0504	CELP027-180Z	PEAKING COIL	18 µH			*
	L0505	CELP027-220Z	PEAKING COIL	22 µH			*
	L0607	CELP026-100Z	PEAKING COIL	10 µH			*
	L0608	CELC005-2R5J7	CHOKE COIL				*

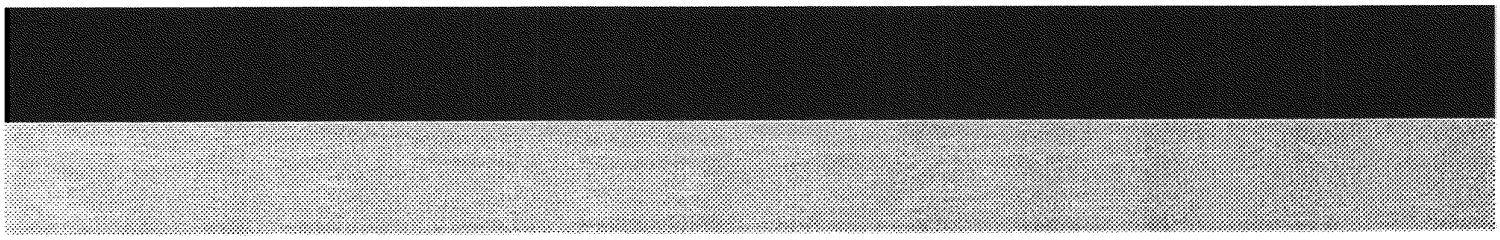
⚠ Symbol No.	Part No.	Part Name	Description	Local
D I O D E				
D0101	MTZJ4.7(A)-T2	ZENER DIODE		*
D0301	MTZJ13(B)-T2	ZENER DIODE		*
D0304-05	MTZJ13(B)-T2	ZENER DIODE		*
D0401-02	MTZJ13(B)-T2	ZENER DIODE		*
D0403	MTZJ10(A)-T2	ZENER DIODE		*
D0501	MTZJ9.1(B)-T2	ZENER DIODE		*
T R A N S I S T O R				
Q0101-02	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0103-04	DTC323TS-T	DIGI.TRANSISTOR		*
Q0105	2PA1015(YG)-T	SI.TRANSISTOR		*
Q0201	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0202	2PA1015(YG)-T	SI.TRANSISTOR		*
Q0203-04	DTC323TS-T	DIGI.TRANSISTOR		*
Q0401-03	2PC1815(YG)-T	SI.TRANSISTOR		*
Q0501	2SC1906-T	SI.TRANSISTOR		*
Q0502-04	2PC1815(YG)-T	SI.TRANSISTOR		*
I C				
IC0401	TEA6416	I.C.(MONO-ANA)		*
IC0501	LA7577N	I.C.(MONO-ANA)		*
IC0601	MSP3410-SDIL	I.C.(DIGI-OTHER)		*
IC0602	BA4558	I.C.(MONO-ANA)		*
O T H E R S				
EF0601	CE42142-223Z	EMI FILTER		*
J0001-02	CE40529-009J1	21 PIN SOCKET		*
SF0501	CE41911-201J1	SAW FILTER		*
X0601	CE42546-001	CRYSTAL		*

PACKING



PACKING PARTS LIST

⚠	Symbol No.	Part No.	Part Name	Description	Local
	1	RM-C761-1E	REMOCON UNIT		*
⚠	2	CQ40152-001-E	INST BOOK	(for GBR/GER/FRA/NED/ESP/ITA)	*
⚠	3	CQ40153-001-E	INST BOOK	(for NOR/FIN/DEN/SWE/POR)	*
	4	BT-20066A-E	ADDRESS CARD		*
	5	AEM3021-001-E	DOCU BAG		*
	6	CP40193-009-E	CUSHION SHEET		*
	7	CP40193-010-E	CUSHION SHEET		*
	8	AEM1004-004-E	SET COVER		*
	9	CP11497-00B-E	CUSHION ASSY	4pcs in 1set	*
	10	AEM1002-038-E	PACKING CAKE	(EURO BOX)	*
	11	AEM1038-009-E	EURO LABEL		
	12	25TS1EN-HSAE	S.DIAGRAM	(for ITALY)	



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